

DOCUMENT RESUME

ED 386 791

EA 026 994

TITLE Design Portfolio, 1995. The Educational Facility Planner.

INSTITUTION Council of Educational Facility Planners, International, Scottsdale, AZ.

PUB DATE 95

NOTE 43p.; Illustrations and photographs may not reproduce clearly.

AVAILABLE FROM Council of Educational Facility Planners, Intl., Executive Headquarters, 8687 E. Via de Ventura, Suite 311, Scottsdale, AZ 85258-3347 (\$7.50).

PUB TYPE Reports - Descriptive (141) -- Guides - Non-Classroom Use (055) -- Collected Works - Serials (022)

JOURNAL CIT The Educational Facility Planner; 1995

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Architectural Programming; Building Design; *Building Innovation; *Building Plans; Cost Effectiveness; *Educational Facilities Design; *Educational Facilities Planning; Elementary Secondary Education; Facility Guidelines; Higher Education; Space Utilization

ABSTRACT

This document contains nationally recognized educational-facility designs, including the 1994 James D. MacConnell Award Winner--Heritage Oak Elementary School in Roseville, California. The architectural designs of other schools are also included--10 elementary schools, 6 high schools, 1 vocational school, 3 institutes of higher education, 1 intermediate school, and 1 fine arts school. Each section includes photographs, the building design, and a project description. Special challenges, the ways in which educational needs were met through design, and special considerations to cost-effectiveness are also highlighted. (LMI)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED 386 791

THE COUNCIL
OF EDUCATIONAL
FACILITY PLANNERS
INTERNATIONAL

EA 026 994

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.
☐ Minor changes have been made to improve
reproduction quality.

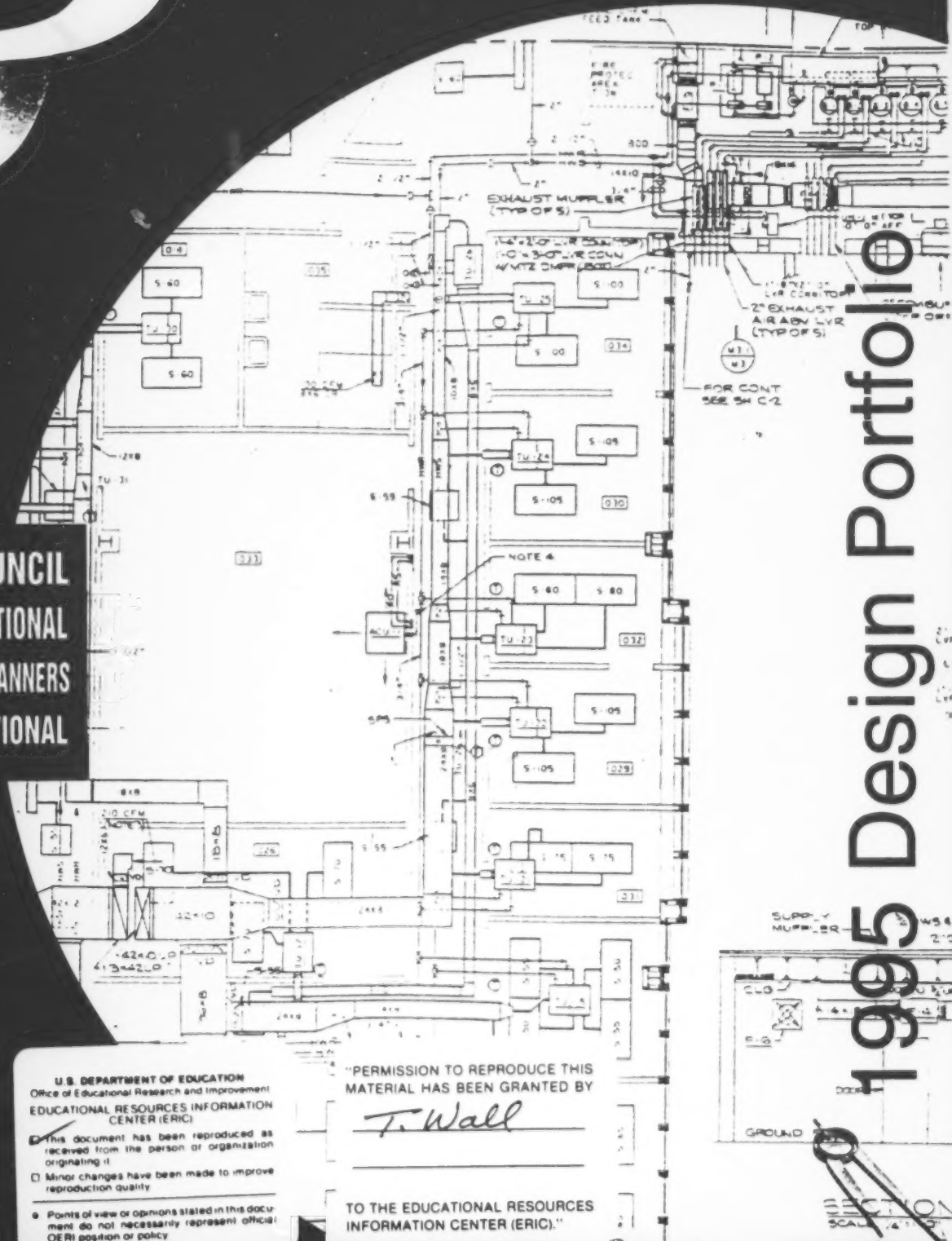
• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

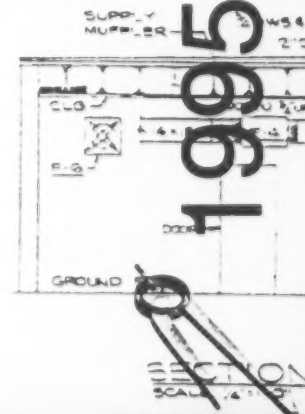
T. Wall

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE



1995 Design Portfolio



THE EDUCATIONAL FACILITY PLANNER

Publisher
Tony J. Wall

Editor-In-Chief / Associate Publisher
Deborah P. Moore

Managing Editor
Nancy Myers

Associate Editors
Tracy Vezdos
Robert L. Flach
G. Kent Stewart
David F. Engelhardt
Kenneth E. Lane

Editorial Board
Nancy Myers, *Chair*
Allan Anderson
Arnold Oates
James E. Jennings
Ernest Lehr
G. Kent Stewart

CEFPI Headquarters
Tony J. Wall / *Executive Director*

CEFPI Officers and Board of Directors

Dr. H. Edward Lilley / *President*
Dr. William DeJong / *Past President*
Mr. Ron McKnight / *President Elect*
Mr. Bill Morley / *Pacific Northwest Region*
Mr. Vern Burk / *At-Large*
Dr. H. James Schroeter / *Southeast Region*
Mr. Robert Bullis / *Southern Region*
Dr. Bill MacLay / *Southwest Region*
Mr. Robert Suckling / *At-Large*
Dr. Ernie Rookey / *Northeast Region*
Dr. Nancy Myers / *Great Lakes & Midwest Region*

1994 James D. MacConnell Award Winner

Heritage Oak Elementary

ELEMENTARY SCHOOLS

Anna Elementary School
Canyon Crest, Mango, Hemlock—Prototype
Evans Elementary
Frankstown Elementary
Lura Kean Elementary
Milliam Mauka Elementary
Nay Ah Shing Lower School
North Ridgeville Education Center
South Lakewood Elementary
Yennadon Elementary

MIDDLE SCHOOLS

Earmington Middle School
Hamilton Southeastern Jr. HS
Harry S. Truman Middle School
Herbert H. Cruickshank Middle School
La Joya Middle School
Mesa Verde Middle School
Mountainside Middle School
Thornton Middle School

HIGH SCHOOLS

Indian Hills High School
Nay Ah Shing Upper School
North Surrey Secondary
Salmon Arms Senior Secondary
Southwest High School
Waukesha West High School

VOCATIONAL SCHOOLS

Katheryn Wentzell Lumley Aviation Center

HIGHER EDUCATION

Alvin C. Bush Campus Center
College of the Sequoias, Science Center
Northern Illinois University

OTHER

Cypress Lake Center for the Arts
Oakpoint Intermediate School

The **EDUCATIONAL FACILITY PLANNER** is a bimonthly publication of the Council of Educational Facility Planners, International and is written, produced and mailed from CEFPI Executive Headquarters, 8687 E. Via de Ventura, Suite 311 Scottsdale, Arizona 85258-3347. Mailed to all members of CEFPI, the Journal is paid for annually as a part of the membership dues. Non-members may subscribe at a rate of: U.S./Domestic, \$40 annually for six issues; Canada, \$50/Foreign, \$55 annually for six issues; \$7.50 single issue price.

The **EDUCATIONAL FACILITY PLANNER** solicits and publishes articles designed to further information about the planning of educational facilities. The opinions expressed in such articles are those of the author and do not necessarily reflect the position of the Council of Educational Facility Planners, International, its Officers or the membership.

CEFPI 1995
Design Portfolio



Heritage Oak Elementary School Roseville, CA

The Dry Creek Joint Elementary School District was established in 1876. District enrollment has grown from 113 students in 1977 to 2,200 in 1993.

The comprehensive planning process for the first new school in over a century began in 1980 with a response to an Environmental Impact Report. An agreement with the land developer and city reserved 10 acres for a school site and an additional 8 acres for a park. Because of rapid growth, the District was required to phase the construction of the new school. A portable starter school was opened to house students as permanent classrooms and core facilities were being constructed.

The Educational Specifications were co-authored by a 28-member committee composed of district staff, the Placer County Office of Education, neighboring school district representatives, and representatives from the business community. The document describing 34 specific areas in detail, also included bubble diagrams for each area. Unique considerations included a joint-use agreement with the City Parks and Rec Dept., child care facilities, a convenience kitchen in the multipurpose room, phones in all classrooms, full computer networking capability and cable television in every instructional area with video broadcast capability. The designs effectively addressed the needs of traditional programs yet provided flexibility to meet the future.

The Educational Program for the Heritage Oak School called for a K-5 instructional program, Multi-Track Year Round Educational calendar, community use, on-site child care, and integration of technology.

Classrooms were designed around inner courts providing for hands-on learning and collegial sharing, and flexibility of student desk configurations within the classroom. Multi-track Year Round Education was easily implemented because workrooms are integrated with groups of three classrooms allowing planning and preparation space for off-track teachers.

Community access is encouraged by the campus design including an outdoor amphitheater for presentations during the school day and community use in the evenings. An on-site child care program is operated as a partnership between the District and City. The union of the park and school site has created a true community center in the Heritage Oak attendance area.

District

Dry Creek Joint Elementary School

Superintendent/President

Kelvin K. Lee

Occupancy Date

July, 1992

Grade Level

K-5

Capacity

668/762 YRE

Site Size

10 Acre School Site

8 Acre Park Site

Gross Area

41,604 Sq. Ft.

Area Per Pupil

62.28 Sq.Ft.

Total Project Cost

\$5,211,285

Design Team

Dry Creek Joint Elementary S.D.

Glen Ovard, PhD

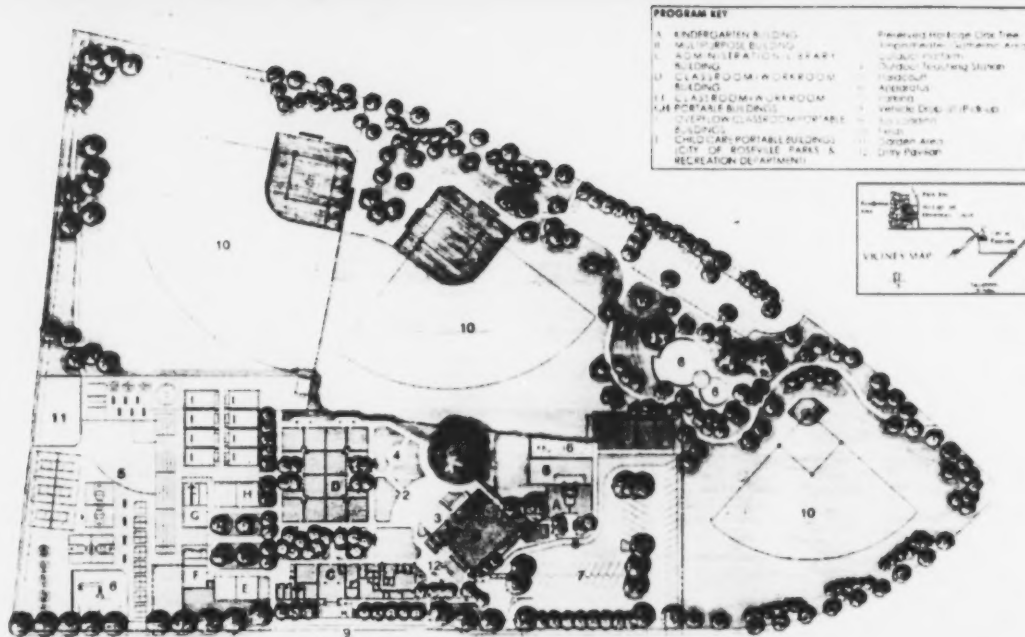
Stafford, King & Associates

City of Roseville Parks and Recreation



1994 James D. MacConnell Award Winner

CEFPI 1995
Design Portfolio





CEFFA 1995 Design Portfolio

ELEMENTARY SCHOOLS

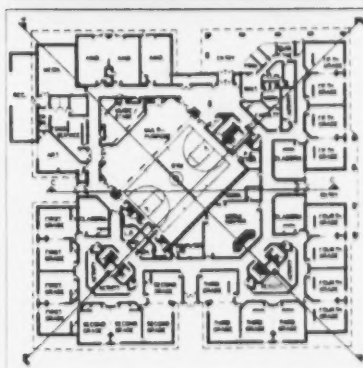
Anna Elementary
Canyon Crest, Mango, Hemlock—Prototype
Evans Elementary
Frankstown Elementary
Lura Kean Elementary
Mililani Mauka Elementary
Nay Ah Shing Lower School
North Ridgeville Education Center
South Lakewood Elementary
Tennison Elementary

BEST COPY AVAILABLE

Anna Elementary School

Anna, OH

CEFP 1995
Design Portfolio



The Anna Elementary School, through the use of a collaborative planning and design process between administration; staff; community; students; and the architect, meets the expectations; goals; and desires of the community of Anna, Ohio, and should continue to do so well into the next century. This new K-5 elementary school facility was designed to serve the needs of 600 students and the community. The building plan groups 23 classrooms (grades 1-5) into neighborhoods surrounding activity rooms for each level. These neighborhoods, with a similar kindergarten/preschool cluster, an art room, and administration, ring a central core of specialized areas. The core not only serves the school population, but is also used as a community facility and includes a multi-zoned computerized media center with educational technology capability, an elementary/intermediate gymnasium, a multipurpose room/cafeteria, and a music room. Operable walls allow these central spaces to transform into a community assembly space seating over 1,000, with the raised music room serving as a stage with a natural acoustical reinforcement design. The building's compact layout is zoned to allow public access to the core community areas and not the academic neighborhoods after hours. The building infrastructure was designed to allow for the networking of four student computers and one teacher's computer in each classroom. Computer network stations were also provided in activity rooms, the art lab, the music room, all itinerant rooms, kindergarten classrooms, offices, throughout the media center, and in the computer lab. Notebook computers were purchased prior to completion of the building to familiarize staff with the use of this teaching tool.

DISTRICT NAME
Anna Local School District

SUPERINTENDENT
Charles M. Rhyan

OCCUPANCY
January 1994

GRADES
Grades K-5

BUILDING CAPACITY (STUDENTS)
600 Students

SITE SIZE
15 Acres
6.1 Hectares

GROSS AREA OF BUILDING
69,026 Square Feet
6,412.5 Square Meters

PER-PUPIL
115 SF/Student
10.7 SM/Student

PROJECT COST

Site Development	\$55,822
Building Construction	\$5,012,076
Fixed Equipment	\$152,916
TOTAL	\$5,220,814

EDUCATIONAL PLANNING FIRM
Franklin Hill & Associates
Kirkland, Washington
Dr. Franklin Hill
206-822-4673

ARCHITECTURAL FIRM
Fanning/Howey Associates, Inc.
Celine, Ohio
Thomas J. Dunwoody, AIA
419-586-7771

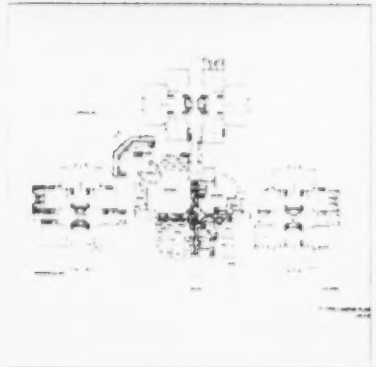
Canyon Crest, Mango, Hemlock—Prototype Fontana, CA

By using the idea of a "Kit o' Parts" to its best advantage, the project was envisioned to create flexible, year-round, prototype elementary schools that could be easily adapted to any of the four sites that the District needed. This would mean that the basic layout could be a "T" shaped campus plan for single street access, or an "L" shaped plan for corner sites. In addition, each campus would be capable of expanding from a capacity of 600 up to 750 students.

Each campus is centered around a core cluster which includes the administration, multi-purpose room, media center and support spaces. These key spaces all meet at a central tower intersection, which is an extension of the exterior covered walkway. This central skylit space is used as a flexible exhibition space and community gathering space for various day and night activities.

The design incorporates a "non-institutional" atmosphere designed to enhance the students' awareness of their unique campus and the close community that the design fosters. While each school campus has all the same elements as the others, the arrangement and colors make a statement that allows each campus to be unique but equal with the others in terms of program areas and amenities. Each campus has 6 classroom clusters centered around a landscaped courtyard.

Some of the other amenities incorporated into the program include providing conduit for future inter-active technology to each classroom, a state-of-the-art multi-media center, and a computer lab with a capacity up to 30 students. Each campus will be networked with the District's computer as well as other campuses around the District.



DISTRICT NAME
Fontana Unified School District

SUPERINTENDENT
Dr. Karen Harshman

OCCUPANCY
Varies: 8/92, 9/92, 9/93

GRADES
K-8

BUILDING CAPACITY(STUDENTS)
750 Students

GROSS AREA OF BUILDING
42,090 Square Feet
3910 Square Meters

PER-PUPIL
56 SF/Student
5.2 SM/Student

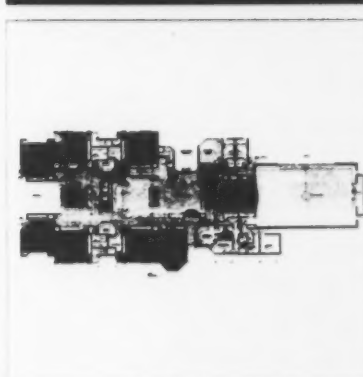
PROJECT COST

Site Development	Varies
Building Construction	Varies
Fixed Equipment	Varies
TOTAL	\$4.8 Million Average

ARCHITECTURAL FIRM
Wolff/Lang/Christopher Architects, Inc.
Rancho Cucamonga, CA
Gayleird Christopher
909-987-0909

Evans Elementary Sardis, British Columbia

CEFPI 1995
Design Portfolio



Evans Road Elementary is a 300 + 1 K + 1 SSE school located on a 4.8 acre flat site in Sardis, BC. The surrounding scale of residential development and a demand for usable open space together with District parking standards have helped create the two storey design. The design concept organizes classrooms on two floors, focusing onto an open library which is considered the heart of the school and fundamental to the belief that the building should offer a sense of family. This central "living room" permits the entire interior of the school to be revealed as one space. Activity throughout this central space will be continually evident as one moves from the open project spaces to the north towards the Multipurpose Room and Gymnasium to the south. A central multipurpose room, slightly raised and open to the library and the gymnasium, offers a variety of performance opportunities. Efficient planning has helped created generous 'project' spaces and classroom clusters that vary in their degrees of interconnections. A "corridor" feeling has effectively been eliminated and the connection between the floors is readily apparent. This connection was animated by creating an elevator and open stair clock tower in the space.

DISTRICT NAME

S.D. # 33, Chilliwack

SUPERINTENDENT

Peter Selmer Property Manager, Carol Lees Principal

OCCUPANCY

September 1997

GRADES

K-7

BUILDING CAPACITY(STUDENTS)

300 1k + 1 SSE Students

GROSS AREA OF BUILDING

30,698 Square Feet

2,853 Square Meters

ARCHITECTURAL FIRM

Dalia-Lana/Griffin Architects

Vancouver, B.C.

Fred Dalia-Lana

604-682-1664

Frankstown Elementary Hollidaysburg, PA

Project Description

The new Frankstown school has a capacity of 1,000 students in 96,123 square feet. The owner envisioned students organized into grade level houses, to allow a more intimate and comfortable setting for the majority of academic activities. The academic houses required easy access to support spaces and outside play areas.

The new Frankstown Elementary serves rapidly growing areas in the District. The school plans are based on a prototype elementary school designed for the District in 1980. The basic organization of the prototype has served the owner well and modifications for current educational philosophies were easily implemented.

Special Challenges

The two story school is organized along a "learning street," which is a main corridor displaying the special activity spaces and public image of the school. Academic grade level houses are set perpendicular to the "learning street" to limit through circulation. Primary Grades 1, 2, 3 occupy the first floor and 4, 5, 6 are stacked directly above. Each wing exits adjacent to designated play areas through semi-circular glass stair towers with distant views of the site. These three wings form courtyards overlooked by classrooms and dominated by 1 1/2-story Art and Music Rooms. Four Kindergartens are located to one end. They are clustered around a two-story, skylit commons area with a reading and storytelling balcony. At the center of the "learning street," abundant natural light from a large dormer window washes the brick walls of the two-story entrance lobby.

Natural daylight and soaring ceilings are important design features in the building, providing a pleasant and uplifting atmosphere. Shingled, pitched roofs and red brick exterior continue the image of the school in the community set by the 1925 High School. State-of-the-art telecommunications and computer networking support an educational environment capable of meeting present and future teaching needs.

Meeting the Educational Program Need of the Building Design

Set in a rural, residential area on 15 acres, the school was sited to accommodate the use of existing building and playing fields. The architect was careful to protect nearby wetlands. Since the existing facility still remains on this constrained site, circulation was planned to allow safe and efficient access to the new school, as well as the existing building.

Special Considerations Given to Cost Effectiveness

The materials and construction type are structural steel frame with brick veneered masonry cavity wall, wood sash aluminum clad windows and asphalt shingle gabled roofs. Mechanical and electrical systems consist of 4-pipe heating and cooling from central boiler and chiller to classroom unit ventilators and zoned AHU's for independent public and administrative spaces.

DISTRICT NAME
Hollidaysburg Area School District

SUPERINTENDENT
Dr. Leo J. Gensante, Jr.

OCCUPANCY
January 1993

GRADES
K-6

BUILDING CAPACITY(STUDENTS)
1,000 Students

SITE SIZE
14.65 Acres
5.93 Hectares

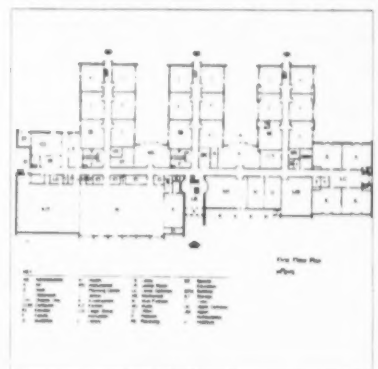
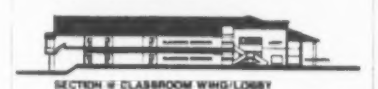
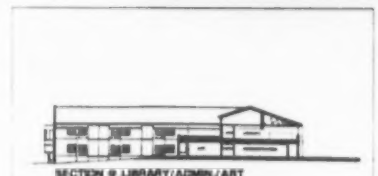
GROSS AREA OF BUILDING
96,123 Square Feet
8,930 Square Meters

PER-PUPIL
96 SF/Student
8.93 SM/Student

PROJECT COST

Site Development	\$727,313
Building Construction	\$8,547,509
Fixed Equipment	\$325,256
TOTAL	\$9,600,078

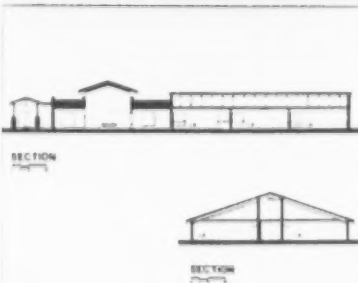
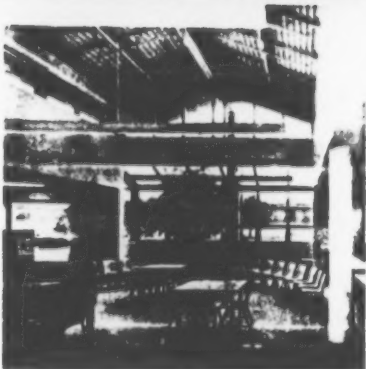
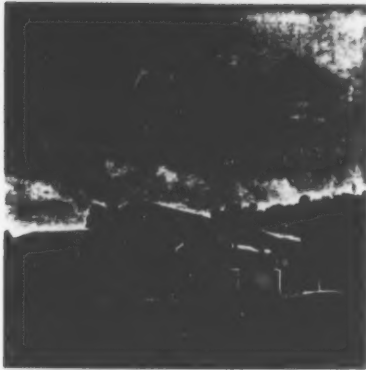
ARCHITECTURAL FIRM
Hayes Large Architects
Altoona, PA
Richard L. Karcher, AIA
814-946-0451



Lura Kean Elementary

Wooster, OH

CEFP 1995
Design Portfolio



Project Description

The program called for an addition to an elementary school in a small rural college town, set in lush green hills, which set high educational standards for the community. The existing, low silhouette elementary school had little fenestration, and lacked a defined main entry. Against this background, the addition was designed with a residential character, having sloped roofs and a scale better suited to elementary school children. The main entry canopy accents this important access to the building and invites children into the school. Colors and texture of materials used relate to both the existing school and to the new high school, designed by the firm, across the street, and serve to unify both sites into a community and educational campus atmosphere.

Special Challenges

The program called for expanding the school by adding new classrooms, a large media center, combined art/ music area, tutorial offices and a satellite kitchen as well as some interior renovation. One of the challenges was to give an upbeat feeling and a sense of identification and personality to the existing school's undistinguished appearance. The architects were also challenged with a limited budget.

Meeting the Educational Program Need of the Building Through Design

Featured prominently in front of the building are the media center and art/music rooms, clearly visible with high pitched roof forms and expanses of glass, identifying them as important spaces in the educational program. The large expanses of glass take advantage of the abundant light and scenic park setting. The colors and textures employed compliment the setting and are harmonious with the campus-type environment solidifying the intent of the design.

Special Considerations Given to Cost Effectiveness

Effective use of inexpensive materials, placement of programmed space, and careful attention to detail kept costs to a minimum. Highly efficient heating and cooling systems decrease the total fossil fuel consumption for the entire site. Efficient use of electrical lighting allows each classroom to select its lighting level. Interactive voice communications is provided with provisions for integrated voice, video and signal. Data and video control will be interfaced with the high school.

DISTRICT NAME
Wooster City

SUPERINTENDENT
H. Doyle Davidson

OCCUPANCY
September 1993

GRADES
K-5

BUILDING CAPACITY(STUDENTS)
158 Students

SITE SIZE
16 Acres
6.48 Hectares

GROSS AREA OF BUILDING
15,700 (addition only) Square Feet
1,458.53(addition only) Square Meters

PER-PUPIL
104 SF/Student
9.66 SM/Student

PROJECT COST
Building Construction \$1.2 M
TOTAL \$1.2 M

EDUCATIONAL PLANNING FIRM
Lesko Associates, Inc.
Cleveland, Ohio
Harold Armstrong
216-835-0850

ARCHITECTURAL FIRM
Lesko Associates, Inc.
Cleveland, Ohio
Nicholas Lesko, FAIA
216-835-0850

Mililani Mauka Elementary

Mililani, Oahu, HI

Project Description

A prototype school integrating current and future educational technology while emphasizing a home-like learning environment. This school also serves as a community center for educational, cultural and recreational events. It contains 40 general classrooms with teachers' offices, 4 special education rooms, 1 computer resource room, administration/counselor offices, cafeteria/multipurpose room with dining and kitchen, combination stage and music room, library and 2 faculty centers.

Special Challenges

Programmed facilities, parking, bus spaces and play field were provided within the compact site by overlapping the function of spaces. The fire lane was designed to double as a pedestrian mall and play area. The buildings were sited in a pinwheel pattern allowing joint use of the court to accommodate outdoor school functions. All buildings are accessible to the physically challenged.

Meeting the Educational Program Need of the Building Through Design

The campus is composed of four residential-scale buildings enclosing an open courtyard. A typical classroom building has two clusters of six classrooms each with adjoining teacher's office. An informal gathering alcove separates the clusters. Each cluster contains student/staff toilets and storage and encircle a high ceilinged, skylighted lobby. Truncated-triangular classrooms with moveable partitions allow classroom and cluster spatial flexibility for various learning activities. The corridor joining the two clusters serves as a student display gallery. All buildings are prewired using accessible cable trays above the ceiling feeding into stub up conduits. A computer access floor is installed in the control room and computer lab. An integrated voice/video/data system is provided. The video system is a fiber-optic network with central switching in the control room. This integrated system is capable of off-the-air programming for State Department of Education networks, satellite reception, on-site VCR connections, video floppy and laser disk players. A sound masking devices is installed in the library reading area. Four student and one teacher computers are assigned to each classroom. A 30-station computer lab is also provided.

Special Considerations Given to Cost Effectiveness

All four buildings were designed using the same compact footprint and simple masonry/steel structure. The repetitious construction system resulted in significant savings in construction time and cost. The design maximizes natural lighting, while incorporating high efficiency lighting and computerized energy management system for air conditioning. The chilled water plant includes a heat recovery system designed to generate hot water for kitchen use.

DISTRICT NAME

Central District

SUPERINTENDENT

Aileen Hokama

OCCUPANCY

March 1992 / August 1993

GRADES

K-6

BUILDING CAPACITY(STUDENTS)

900 Students

SITE SIZE

9.317 Acres

3.770 Hectares

GROSS AREA OF BUILDING

100,030 Square Feet

9,293 Square Meters

PER-PUPIL

110 SF/Student

10.22 SM/Student

PROJECT COST

Site Development \$2,400,000

Building Construction \$13,000,000

Fixed Equipment \$600,000

Other \$1,000,000

TOTAL \$17,000,000

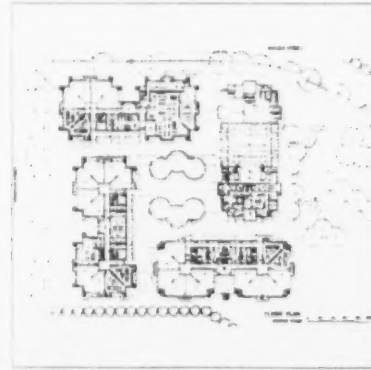
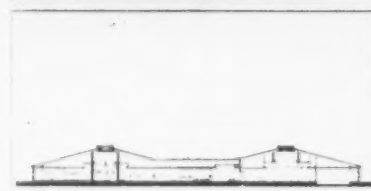
ARCHITECTURAL FIRM

Peter Hsi Associates, Inc.

Honolulu, Hawaii

Dennis C. Lee, AIA CSI

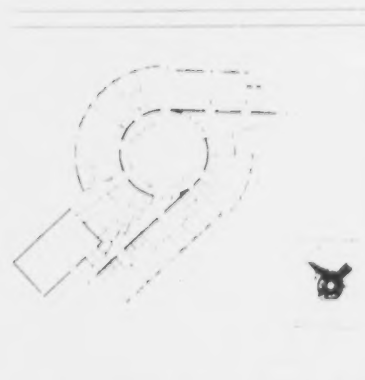
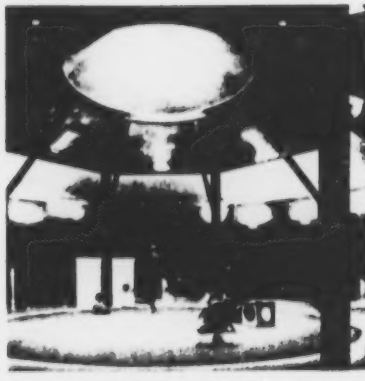
808-591-8281



Nay Ah Shing Lower School

Vineland, MN

CEFP 1995
Design Portfolio



Project Description

The Nay-Ah-Sing Lower School is one of five community buildings developed for the Mille Lacs Band of Ojibwe. The buildings are located on a peninsula along the shores of Lake Mille Lacs and surrounded by the forest and marshland which has been the Ojibwe homeland since the 18th century. The Lower School, which houses children from age six weeks to fourth grade, is paired with the Nay-Ah-Shing Upper School (grades 5-12), to offer a comprehensive curriculum which promotes excellence in academic subjects and prepares students to compete in higher education and the workplace while helping them maintain their unique cultural identity as Native Peoples.

Special Challenges

The greatest challenge on this project was working with a different culture and interpreting their values and traditions into a built form while utilizing cost-effective modern technology and materials. Working with the Band Members, CHO Architects helped derive program and space requirements for everything from child care and head start to modern classrooms and a computer room. Other challenges revolved around jurisdictional code issues, BIA requirements, and the Band's requirement for construction training and employment opportunities throughout all phases of design and construction.

Meeting the Educational Program Needs of the Building Through Design

The Band's cultural spirituality is based on a collective relationship with nature and a respect for the environment. Much of the school's design centers around the articulation of this cultural spirituality. The large central motor room uses a structural system derived from the Ojibwe Dream catcher, a bent twig woven in a loop with a spider web sinew pattern. The belief that this element screens good spirits from bad and enhances the dreams of children is a powerful cultural symbol to the Band and gives this building an inherent connection to their cultural belief system and American Indian vernacular traditions.

Special Consideration Given to Cost Effectiveness

The materials used in this building needed to be cost effective in construction and provide for easy maintenance while representing Ojibwe culture. The solution was to design the school as a single story slab on grade building with dimensional asphalt shingle roofs and acid-etched concrete block exterior walls, while using stucco and wood as accent materials.

DISTRICT NAME

Mille Lacs Band of Ojibwe

SUPERINTENDENT

Mr. Dwayne Dunkley

OCCUPANCY

September 1993

GRADES

PK-3

BUILDING CAPACITY(STUDENTS)

200 Students

GROSS AREA OF BUILDING

28,400 Square Feet

2639 Square Meters

PER-PUPIL

142 SF/Student

13.2 SM/Student

PROJECT COST

Site Development	\$160,000
Building Construction	\$2,140,000
Fixed Equipment	\$60,000
TOTAL	\$2,360,000

EDUCATIONAL PLANNING FIRM

CHO Architects
Minneapolis, Minnesota
612-379-3400

ARCHITECTURAL FIRM

Cunningham Hamilton Quiter, P.A.
Minneapolis, Minnesota
Mr. John Quiter
612-379-3400

CONSTRUCTION MANAGEMENT FIRM

Lumbar/Kraus Anderson
Minneapolis, Minnesota
Mr. Al Gerhardt
612-332-7281

CEFP 1995
Design Portfolio

North Ridgeville Education Center North Ridgeville, OH

Project Description

A deteriorating, abandoned super market that was an eyesore in the community offered a unique, cost-effective solution to the school district's space problems. After gutting, the building was totally renovated. New window openings and operable windows were incorporated for the fourteen new classrooms and special areas to provide a pleasant, open and friendly atmosphere, not only for the young children, but for the district's administrative offices and community center. For exterior treatment the entire building was painted and primary colors were used to accent the new windows. Replacing the rectilinear canopy with an undulating form adds new interest and color to the facade. The entire building was re-roofed and designed with handicapped accessibility. An outdoor children's play area and extensive landscaping, including earth mounds and trees, were incorporated in the site reconfiguration. The overall appearance of the building and site is a welcome addition to adjacent properties and the community and provides a pleasant response to those using the facility.

Special Challenges

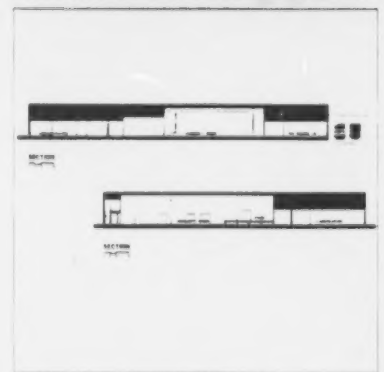
The challenge to the architects, with a very limited budget, was to convert the building into a 14-classroom kindergarten and pre-school; board of education/central administration offices; and a multi-purpose room with a capacity for 600 persons, including a stage.

Meeting the Educational Program Need of the Building Through Design

Six kindergarten classrooms were located in close proximity as were the preschool and ancillary areas. The Community Room was centrally located adjacent to the administrative offices form a core unit. As neither the school district nor the community had a facility for meetings, musical and dramatic performances, or community gatherings, a large area with a capacity of 600 was designed to meet school and community needs.

Special Considerations Given to Cost Effectiveness

Effective use of inexpensive materials and careful attention to detail kept costs to a minimum. Re-cycled paving materials in the parking area resulted in a cost savings while reinforcing the district's recycling philosophy.



DISTRICT NAME
North Ridgeville City

SUPERINTENDENT
James Levero

OCCUPANCY
August 1993

GRADES
PK-K

BUILDING CAPACITY(STUDENTS)
300 Students

SITE SIZE
6 Acres
2.43 Hectares

GROSS AREA OF BUILDING
34,000 Square Feet
3,159 Square Meters

PER-PUPIL
113 SF/Student
10.5 SM/Student

PROJECT COST

Site Development	\$120,000
Building Construction	\$1,517,000
Fixed Equipment	\$70,208
TOTAL	\$1,707,208

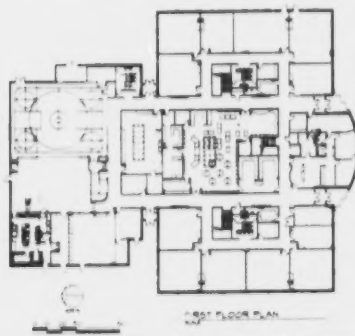
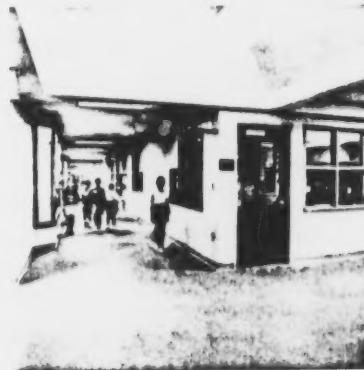
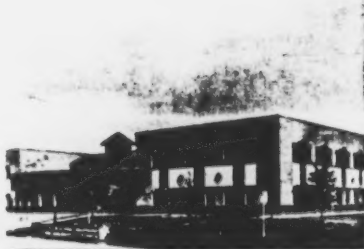
EDUCATIONAL PLANNING FIRM
Lesko Associates, Inc.
Cleveland, Ohio
Harold Armstrong
216-835-0850

ARCHITECTURAL FIRM
Lesko Associates, Inc.
Cleveland, Ohio
Nicholas Lesko, FAIA
216-835-0850

South Lakewood Elementary

Golden, CO

CEFP 1995
Design Portfolio



A challenge: Design and build an elementary school on a 4.67 acre site while keeping the original 1950's building and playground intact during construction. South Lakewood Elementary School is located in a well-established and fully-developed 1950's style neighborhood where young people who perhaps grew up in the area are returning with their families to provide for their children a good sound education. Due to the project being surrounded by such an established area, it was necessary to create a high level of cooperation and coordination with the residents which allowed construction to proceed in a timely manner.

The original direction from the planning office of the school district to the architectural team was to design an addition to and remodel the existing facility, bringing the school up to today's educational and current accessibility standards. When it became apparent that this approach was not financially advisable, the decision was made to demolish the old building and construct a new facility on the same site. Neighborhood opposition to demolishing the old structure was overcome and design was begun. What a great opportunity for kids to learn about the whole design and construction process, for they and their teachers and other staff members were involved from the beginning of the project.

The 51,670 SF two story building contains twenty-four classrooms, each at 850 SF and arranged in the "teaching pod" concept. Moveable walls between classrooms provide the freedom of flexibility. Cable has been installed throughout the building to provide network access in each classroom as well as the media center and offices. The library media center is centralized and provides a focal point for the educational program. The building is barrier-free with access to the second floor via an elevator located in the tower visible from the main entrance. The unique feature of this tower is the sundial which is used to explore the history of time, the seasons, and the solar system.

Jefferson County Schools has a well-defined educational specification which states, in part "that the facility is an integral part of the educational program. It has an influence on learning, the performance of staff and students, and indirectly influences attitudes and behavior. It should create a setting that is conducive to optimal learning and human performance and should reflect the value placed on education by the residents and staff of the district. With this philosophy as a guide and the involvement of the design advisory group, a district sanctioned function, the architectural design team was able to create a facility that truly reflects the attitudes of the South Lakewood Elementary School community.

DISTRICT NAME
Jefferson County

SUPERINTENDENT
Wayne Carle

OCCUPANCY
August 1994

GRADES
K-6

BUILDING CAPACITY(STUDENTS)
650 Students

SITE SIZE
4.67 Acres
1.87 Hectares

GROSS AREA OF BUILDING
51,670 Square Feet
4,800 Square Meters

PER-PUPIL
79.5 SF/Student
7.4 SM/Student

PROJECT COST

Site Development	\$471,537
Building Construction	\$3,291,531
Fixed Equipment	\$188,517
TOTAL	\$3,951,585

ARCHITECTURAL FIRM
Slater-Pauli & Associates, Inc.
Denver, Colorado
James F. Pauli
303-770-8778

CONSTRUCTION MANAGEMENT FIRM
Saunders Construction, Inc.
Denver, Colorado
Fred Brown
303-699-9000

CEFP 1995
Design Portfolio

Yennadon Elementary Maple Ridge, B.C.

Yennadon Elementary School services a buoyant area of Maple Ridge. Increasing residential development pressure in the north east quadrant of the municipality is creating demands that the existing facility cannot fulfill. This provides the opportunity to replace the school with a state of the art facility.

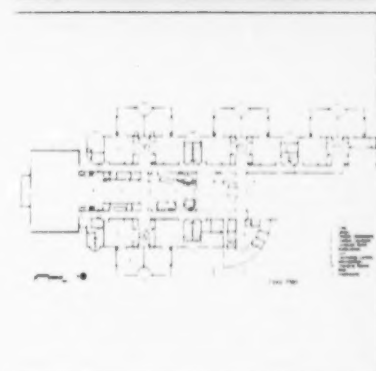
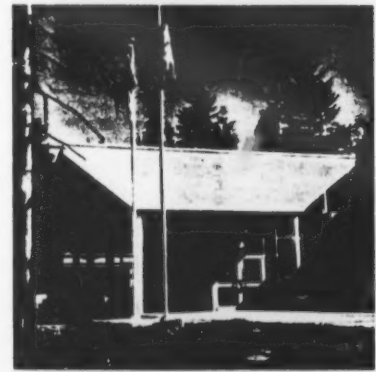
To the east of the existing school the site provides a forested and tranquil setting ideally suited to redevelopment. Construction will be accommodated without disrupting current operation of the existing school or playing fields.

The proposed building is envisioned as a village typology, more specifically, as a 'clearing in the woods,' an oasis for learning in a West coast environment. This appropriate campus like image will foster learning within a regional context. As the site is located on the fringe of the ALR, its natural buffer zones of treed borders will allow it to fit in with sensitivity.

The replacement of Yennadon Elementary provides a design opportunity to accommodate changing educational philosophies and technology.

The proposed facility is intended to be a total environment, a definitive place that engenders education and interaction through a spatial vocabulary that is ordered and comprehensible to both students and educational professionals. A gentle massing is utilized to evoke an accessible and unpretentious identity.

1. The zoning of the school configures teaching clusters around technology centre cores. These cores are organized along a 'garden' concourse that includes a library/media centre, a music classroom, and active courtyard and arterial circulation.
2. The gymnasium is located at the north end of ramped corridors providing a raised level multipurpose/stage that completes the garden-concourse axis with a link to the music classroom.
3. The administration zone is located in a fulcrum form that is announced at the west side of the main entry concourse. The east side is the Phase 2 expansion cluster that provides a backdrop for the diagonal entry axis.
4. Dynamic east and west facing clerestory wing roof forms reach to the sky and treetops for daylighting and views throughout the school to articulate an open airy interior as well as exterior form.



DISTRICT NAME
SD # 42, Maple Ridge—Pitt Meadows

OCCUPANCY
September 1994

GRADES
K-7

BUILDING CAPACITY(STUDENTS)
450 Students

GROSS AREA OF BUILDING
36,584 Square Feet
3,400 Square Meters

PER-PUPIL
81 SF/Student
7.5 SM/Student

ARCHITECTURAL FIRM
Dalla-Lana/Griffin Architects
Vancouver, B.C.
Sebastian Butler-MAIBC
604-682-1664



CEFA 1995 Design Portfolio

MIDDLE SCHOOLS

Farmington Middle School

Hamilton Middle School

Harry S. Truman Middle School

Herbert H. Gilleks Middle School

Lincoln Middle School

Mesa Verde Middle School

Mountain Side Middle School

Thomson Middle School

BEST COPY AVAILABLE

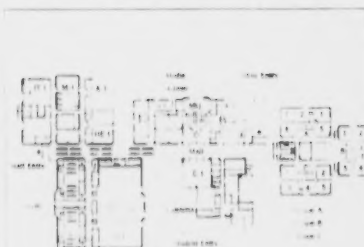
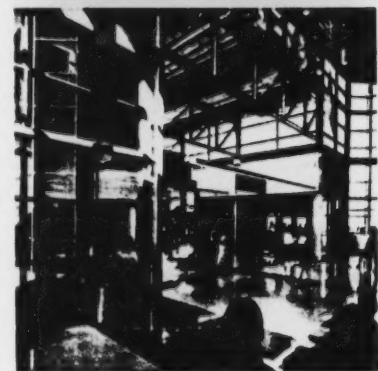
CEFPI 1995
Design Portfolio

Farmington Middle School Farmington, MN

In order to provide a smooth transition from elementary to high school education, the new Farmington Middle School has been designed to reduce a large student population into 6 "houses" of 150 students each. Smaller groups enable a more personalized experience between students and an interdisciplinary staff that share common areas for teacher preparation, homeroom activities, Language Arts, Math, Social Studies, Science, and Special Education classes.

Students, teachers, and advisors are grouped throughout Grades 6, 7, and 8 in "houses" that remain intact for 3 years as smaller learning communities that eliminate a student's sense of anonymity. This facility has been tailored to interdisciplinary team teaching and to the concept that an effective education must be supported by an effective facility.

Two floors of "house" functions are connected by a monumental stairway/gathering area to a lively "glass concourse" that opens to administration, cafeteria, and Media Center enroute to Art, Music, Home Economics, Industrial Technology, and Physical Education areas. Monumental window-walls and clerestory glazing allow an expanse of natural light to filter through an interesting structural skeleton with a stimulating array of mirrors, exposed mechanical ducts, and suspended acoustic panels.



DISTRICT NAME
Farmington Public Schools, # 192

SUPERINTENDENT
Ms. Patricia L. Hansauer

OCCUPANCY
May 1993

GRADES
6-8

BUILDING CAPACITY(STUDENTS)
900 Students

SITE SIZE
64.2 Acres
25.69 Hectares

GROSS AREA OF BUILDING
190,931 Square Feet
17,737 Square Meters

PER-PUPIL
212 SF/Student
19.7 SM/Student

PROJECT COST

Site Development	\$600,000
Building Construction	\$15,172,000
Fixed Equipment	\$2,088,000
TOTAL	\$17,860,000

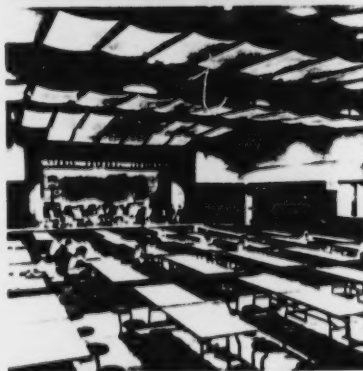
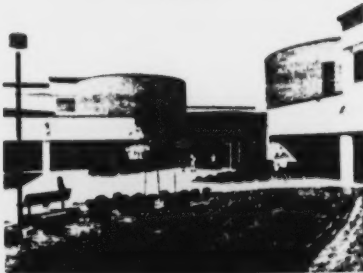
EDUCATIONAL PLANNING FIRM
Armstrong, Torseth, Skold and Rydeen, Inc.
Minneapolis, Minnesota
James E. Rydeen, FAIA
612-545-3731

ARCHITECTURAL FIRM
Armstrong, Torseth, Skold and Rydeen, Inc.
Minneapolis, Minnesota
James E. Rydeen, FAIA
612-545-3731

Hamilton Southeastern Jr. HS

Fishers, IN

CEFP 1995
Design Portfolio



The new Hamilton Southeastern Junior High School was designed to house 1,000 students in grades 6-8. The 171,100 square foot facility accommodates traditional classroom spaces positioned around a centrally located two-story media center. This two-story element is capped with a skylight that brings natural light into the heart of the academic portion of the building. The design is flexible in that it will respond to departmental or interdisciplinary team curricula. An intentional distinction is made between the academic/quiet areas of the building from the community/activity areas. The rotation of the second floor creates student entries and reduces the overall scale of the building. The community accessible portion of the building houses a 1000-seat spectator gymnasium, an auxiliary physical education gymnasium and a 500-seat auditoria. The auditoria concept provides for a space designed as an auditorium in all respects except that the seating is moveable. The building contains a fully integrated voice, video and data educational technology system interconnecting all spaces in the building. A fiber-optic backbone serves IBM Type-I cable to the computer terminal connections. The heating, ventilating and air-conditioning system is a state of the art, highly efficient, fan-powered, variable air volume design. The entire facility operates on day/night zones which can be reprogrammed for special events.

DISTRICT NAME

Hamilton Southeastern Schools

SUPERINTENDENT

Dr. Charles D. Leonard

OCCUPANCY

September 1993

GRADES

6-8

BUILDING CAPACITY(STUDENTS)

1000 Students

SITE SIZE

33 Acres

13.36 Hectares

GROSS AREA OF BUILDING

171,100 Square Feet

15,895 Square Meters

PER-PUPIL

171 SF/Student

15.9 SM/Student

PROJECT COST

Site Development	\$2,223,800
Building Construction	\$10,862,541
Fixed Equipment	\$553,262
TOTAL	\$13,639,603

ARCHITECTURAL FIRM

Fanning,Howay Associates, Inc.
Indianapolis, Indiana
Daniel R. Mader, AIA
317-848-0986

CONSTRUCTION MANAGEMENT FIRM

The Skillman Corporation
Indianapolis, Indiana
Bart York
317-783-6151

CEFPI 1995
Design Portfolio

Harry S. Truman Middle School Fontana, CA

Project Description

The new school will contain 1,073 students and total 83,276 s.f. The students are housed in two identical 500 student villages. These "Schools within a School" contain a full range of core academic programs, as well as staff work, counseling and conference spaces.

The building complex massing is designed in a linear urban fashion to shelter the interior outdoor spaces from the strong northerly Santa Ana winds. Located at opposite ends are the two academic villages. Connecting them are the shared program and support areas. Bisecting these support elements is a linear wall beginning at the entrance of the school. This wall serves to tie together the three main public facilities, i.e. the Learning Resource Center, Multi-Purpose Theatre and Gymnasium. It also organizes the exterior courtyards in circulation streets, small group gatherings, and large group amphitheatre.

Architecturally, the design reflects the urban environment in which the school is located. Buildings are densely placed to define streets and paths. Their elevations and forms recall the industrial heritage of the Fontana community. The former Kaiser Steel works are one mile from the site. The building forms are also differentiated to highlight separate elements and emphasize the academic program.

Meeting Educational Program Needs Through Design

To meet the "Caught in the Middle" objectives, it was decided that the individual classrooms should be located in a fashion that would allow teachers with common student populations to be in close proximity to each other. Therefore, the school has academic "families" whose organization is based on the concentration of students with certain common characteristics related to their grade level. By locating the majority of the academic spaces oriented towards a particular grade level in one place, interdisciplinary teaching will be facilitated.

At the seventh and eighth grade levels, a family consists of classrooms for language arts, mathematics, history and science around a common activity area. Elective courses such as art, music and exploring technology will be provided in specialized spaces at a central location on the campus. Since the sixth grade curriculum contains a basic education program of core subjects that is presented in a single classroom by a single teacher, the sixth grade families consist of one type of general classroom in a cluster grouping of three units per family.

Another objective of the planning committee was to reduce the effective size of the school into manageable increments that will facilitate individualized instruction and support services. The creation of this "school within a school", was accomplished by combining families from each grade level into "villages." Each village is made up of two sixth grade families, one seventh grade family and one eighth grade family.

DISTRICT NAME
Fontana Unified School District

SUPERINTENDENT
Dr. Karen Harshman

OCCUPANCY
Fall 1995

GRADES
6-8

BUILDING CAPACITY(STUDENTS)
1,073 Students

SITE SIZE
20 Acres
8.09 Hectares

GROSS AREA OF BUILDING
83,276 Square Feet
7,736 Square Meters

PER-PUPIL
77.61 SF/Student
7.21 SM/Student

PROJECT COST

Site Development	\$2,894,899
Building Construction	\$12,814,700
TOTAL	\$14,000,000

EDUCATIONAL PLANNING FIRM

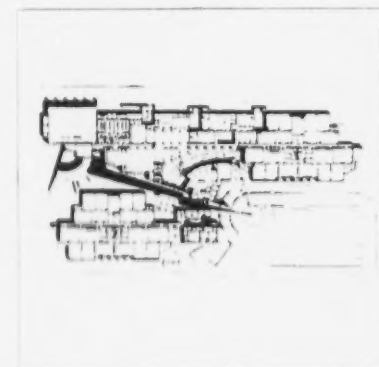
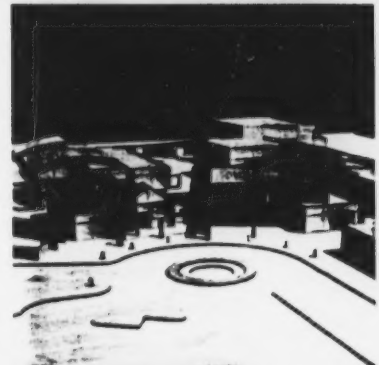
The Blurock Partnership
Newport Beach, California
Alan E. Smith, AIA
714-673-0300

ARCHITECTURAL FIRM

The Blurock Partnership
Newport Beach, California
Alan E. Smith, AIA
714-673-0300

CONSTRUCTION MANAGEMENT FIRM

The Blurock Partnership
Newport Beach, California
Robert Bradshaw, Partner
714-673-0300

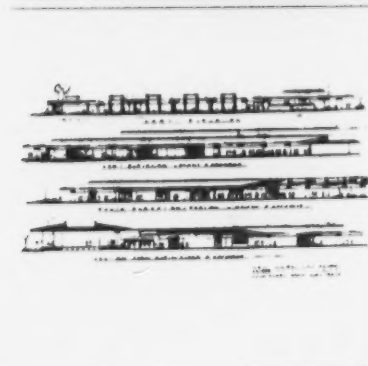
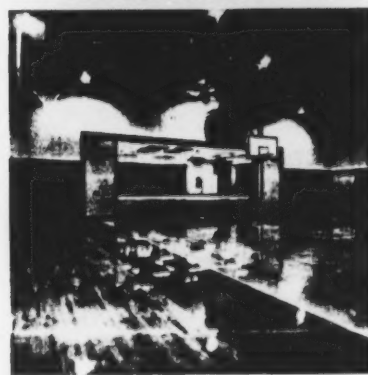


Herbert H. Cruickshank Middle School

Merced, CA



CEFP 1995
Design Portfolio



Project Description

This 1200 student Middle School is constructed of wood and steel frame, with brick veneer. Materials were chosen for their ability to age gracefully and to convey a sense of permanence to a building planned to endure the next 100 years. Teaching areas include general classrooms, space for science, technology, art, music, and home economics, relocatable classrooms, and special education "units", in effort to mainstream the special education program within the school facility. Assembly spaces such as the gymnasium, multi-purpose room, and outdoor covered commons, provide flexible gathering spaces for both student and community use. The library is situated to be the physical and educational center of the complex, fronting onto the student quad. Other spaces include the administrative, kitchen/serving, locker rooms, workrooms, and support facilities.

Special Challenges

Rapid technological advances and increasing emphasis on science, paralleled with a decreasing need for traditional industrial arts and home economics, poses a challenge in accommodating for these changes in the future. The school was originally planned with a traditional industrial arts shop, but due to these rapid advances, a change was made during bidding phase to replace the shop with a technology lab. To accommodate for possible future expansion in science and gradual phase out of home economics teaching spaces, the home economics classroom is roughed-out, capped and plumbed for conversion into a science lab at a future date.

Meeting Educational Program Needs Through Design

Maximizing capabilities of the learning environment is achieved through flexibility and dual use of space. General purpose classrooms, typically grouped in fours, share a central workroom that can be used for teacher office space or small supervised group instruction. Flexibility is apparent in the three-sided stage, which opens to the gymnasium, multi purpose room, and outdoor covered commons, and can be separated from these adjoining rooms, by acoustically rated partitions, to form a music classroom. In the relocatable buildings, the quality of the teaching environment has not been compromised. The relocatable buildings are custom built, flush with finish grade, and custom finished with the same quality of materials as the permanent buildings.

Special Considerations to Cost Effectiveness in the Design

The Middle School facility is a state funded project, designed within the area and cost limitations of the State building program. Thirty percent of the teaching stations are located in State mandated relocatable classrooms to provide flexibility for declining enrollment anticipated in the distant future. To minimize energy costs, large overhangs and glare reducing glass, economizers on HVAC units, and energy efficient fluorescent lighting are provided.

DISTRICT NAME
Merced City School District

SUPERINTENDENT
Dr. Donald V. DeLong, Ed.D

OCCUPANCY
August 1994

GRADES
5-8

BUILDING CAPACITY (STUDENTS)
1131 Students

SITE SIZE
20 Acres
8.1 Hectares

GROSS AREA OF BUILDING
97,424 Square Feet
9,060 Square Meters

PER-PUPIL
86 SF/Student
8 SM/Student

PROJECT COST

Site Development	\$2,664,400
Building Construction	\$9,807,240
Fixed Equipment	\$700,000
TOTAL	\$15,207,300

ARCHITECTURAL FIRM
Carmichael-Kemp Architects
Los Angeles, California
Tamara Schaeffer/Mark Kemp
213-666-1265

La Joya Middle School Visalia, CA

Project Description

With the primary focus on technology, the center hub of the campus is the Library/Media Center/Career and Computer Lab building. Adjacent is the Amphitheater and Multi-Purpose Building complete with indoor and outdoor performing stages, food services and locker rooms as well as staff dining and central custodial facilities. Its distinctive arches and bright color scheme lend to the school's concept of motivating students and building self-esteem by recognition of their importance. The Tech Building houses the Technology Lab, Life Skills Lab and an acoustically-correct band room. The Science Building boasts three complete science labs for life, earth and physical sciences and one general science classroom. Twenty-two regular classrooms, a Resource Specialist Program and an art classroom are contained in three classroom buildings.

Special Challenges

1. Technology: Designing in 1990 for technology in 1994 (when the funds were available for building) required planning for future technology through the use of conduit and network wiring throughout the school.
2. Safety: The building complex was required to be secured by a permanent fence. The masonry and ornamental iron perimeter fence allows access in only three locations: Administration Building; the Bus Loading entrance and a locked emergency vehicle access at the Gymnasium.
3. Relocatable Classrooms: Integrating the state required 30%. One of the classroom buildings is actually four site-built relocatables configured to look the same as the other classroom buildings and architecturally detailed to match, though cement plaster in finish.

Meeting the Educational Program Through Design

An agreement between the School District and the City to utilize the gymnasium for community programs allowed for an increase in size of the gym by 25%. The school site needed to be open to the public for ease of access for recreational needs. Decentralized administration requirements resulted in three separate Learning Director Pods having their own conference and faculty workstations. Because of the central communications system (audio/video/television and computer internet for the entire campus.) La Joya Middle School is one of three schools nationally to be selected by Rockwell International and the Cal Tech's Jet Propulsion Lab Mars Simulation Project to adopt NASA in their curriculum.

Special Considerations to Cost Effectiveness in the Design

The entire facility utilizes state-of-the-art equipment to conserve energy ranging from motion sensors, which automatically turn off lights when not in use, to thermal energy storage of ice to take advantage of off-peak energy to develop ice for campus cooling. Natural colored split face concrete was utilized to accentuate the light color scheme while providing a very low-maintenance, vandal resistant surface, limiting sound, and reducing energy consumption.

DISTRICT NAME

Visalia Unified School District

SUPERINTENDENT

Dr. Sharon Tucker

OCCUPANCY

August 1994

GRADES

7-8

BUILDING CAPACITY (STUDENTS)

950 Students

SITE SIZE

17.46 Acres

7.07 Hectares

GROSS AREA OF BUILDING

73,382 Square Feet

6,817 Square Meters

PER-PUPIL

77.24 SF/Student

7.18 SM/Student

PROJECT COST

Site Development \$1,813,680

Building Construction \$6,764,520

TOTAL \$8,378,200

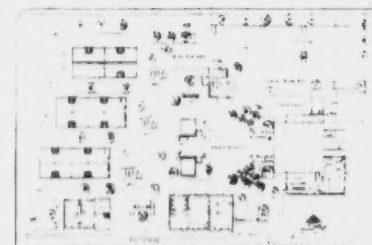
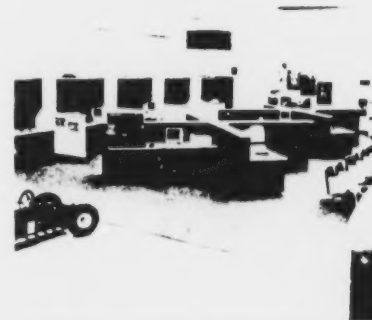
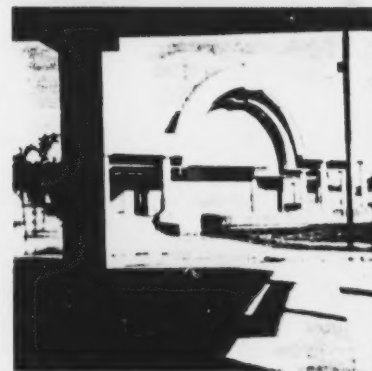
ARCHITECTURAL FIRM

Mangini Associates

Visalia, California

Richard Mangini, AIA

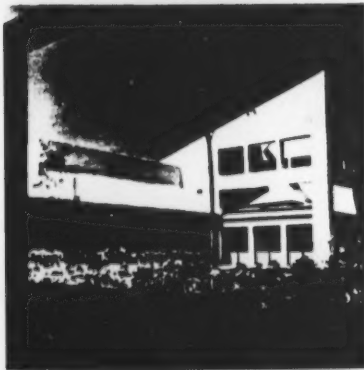
209-627-0530



Mesa Verde Middle School

Poway, CA

CEFP 1995
Design Portfolio



Project Description

Mesa Verde Middle School was planned to house grades 6-8 in a campus plan facility with a capacity of 1,350 students and over 100,000 square feet. Located at the hinge of the campus at the crown of the high ground is the "Acropolis" of the school community, the Campus Center. Here grouped around a large courtyard are the major public facilities including the Administration, Performing Arts, Food Service, and Library Media Center whose campanile tower forms the major focal axis point of the campus. To support this learning environment a technology network is an integral part of the overall campus design. This network consists of an interface system between the school and community for administrative and instructional activities, a "smart wall" in each classroom which will allow teachers to present information within a multi-media context to students, and a system of individual learning stations for focused computer assisted learning in both the classrooms and the Library Media Center.

Special Challenges Faced

The School contains the latest in technology linked together in a school-wide data network. This network radiates out from the Campus Terminal Point located in the Administrative Building. The CTP connects the campus to the outside world for television and telephone signals, contains the campus-wide file servers, and distributes these signals to individual Building Terminal Points throughout the campus through a fiber optic network.

It was the desire of the District to make the campus as aesthetically consistent with the surrounding community as possible. Each major building is treated individually drawing from a standard kit of parts. All are tied together by the covered walkway system. These walks are designed in a series of masonry walls forming an archeology on the site. When viewing the school from below, the random character, together within the topographic change, gives the facility the impression of a hilltop town and not a massive institutional facility.

Meeting Educational Program Needs Through Design

The educational program calls for an academic community comprised of individual clusters, or "Villages", for each grade level. Each village contains classrooms radiating around a central outdoor cloistered court. These spaces form the heart of each village and are utilized for impromptu gatherings and formal educational instruction.

Special Considerations to Cost Effectiveness in the Design

All campus buildings have a four foot high wainscot of split faced block where they face public spaces. This material will withstand wear and vandalism much better than the stucco material above it that makes up the remainder of the exterior wall surfaces of these buildings.

DISTRICT NAME
Poway Unified School District

SUPERINTENDENT
Robert L. Reeves

OCCUPANCY
June 1994

GRADES
6-8

BUILDING CAPACITY(STUDENTS)
1,359 Students

SITE SIZE
25 Acres
10.11 Hectares

GROSS AREA OF BUILDING
103,000 Square Feet
9,568 Square Meters

PER-PUPIL
76.3 SF/Student
7.09 SM/Student

PROJECT COST

Site Development	\$3,747,383
Building Construction	\$12,135,000
Fixed Equipment	\$300,000
TOTAL	\$17,863,432

ARCHITECTURAL FIRM
The Blurock Partnership
Newport Beach, CA
Alan E. Smith, AIA, Senior Partner
714-673-0300

CONSTRUCTION MANAGEMENT FIRM
The Blurock Partnership
Newport Beach, CA
Robert Bradshaw, Partner
714-673-0300

CEFP 1995
Design Portfolio



Mountainside Middle School Scottsdale, AZ

Project Description

Sharing an 80-acre site with a new High School, Mountainside Middle School houses 900 sixth through eighth grade students. Incorporating the "school within a school" philosophy, the facility contains six, five classroom pods designed to house 150 students per pod for five class sessions each day. Since teachers and students are isolated from the remaining facility for the majority of the day, communications technology incorporated into each classroom provides them with easy access to all on-campus locations, as well as outside sources. An Instructional Technology Center provides each classroom with the ability to interface with other spaces within the facility, as well as outside sources.

Special Challenges

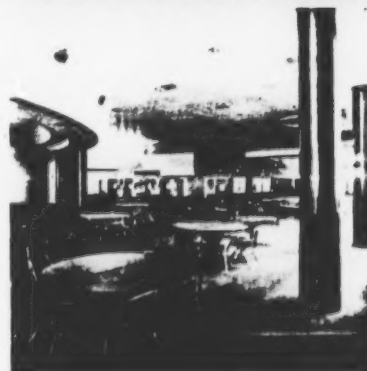
Accommodating state-of-the-art technology in all aspects of design required special consideration. Conduits throughout the facility enable easy upgrades. Extra large classrooms accommodate a computer for every student. Floor receptacles with power and data connections and a surface-mounted perimeter raceway, located at the base of all classroom walls for computer connections allow flexibility in classroom layout. Computer tables were custom designed by the firm to specifically accommodate the school's technology requirements. Extensive use of demountable partitions was incorporated to enable team-teaching opportunities and classroom-size variations.

Meeting the Educational Program Needs of the Building Through Design

Extensive use of demountable partitions enables team-teaching opportunities and classroom-size variations, in response to the District's integrated teaching methods. Flexibility and adaptability to future functional requirements are met by conduit, patch rooms, etc. Extra large classrooms provide computers for every student, and integrate state-of-the-art technology into the learning environment. To preserve and enhance the character of the desert environment, the design preserves the natural landscape, as well as minimizes environmental damage caused by changing the existing natural drainage patterns. The building masses step down into the sloping site and create a low profile facility that allows the natural vegetation to permeate and beautify the campus environment.

Special Considerations Given to Cost Effectiveness

A steel post and beam with masonry bearing wall structural system was utilized for efficiency and speed of construction.



DISTRICT NAME
Scottsdale Unified School District

SUPERINTENDENT
Dr. Duane Sheldon

OCCUPANCY
August 1991

GRADES
6-8

BUILDING CAPACITY(STUDENTS)
900 Students

SITE SIZE
80 Acres
32.4 Hectares

GROSS AREA OF BUILDING
142,000 Square Feet
13,192 Square Meters

PER-PUPIL
158 SF/Student
14.7 SM/Student

PROJECT COST

Site Development	\$1,330,650
Building Construction	\$11,550,390
Fixed Equipment	\$500,000
TOTAL	\$12,381,040

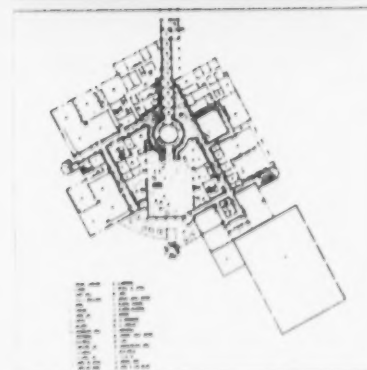
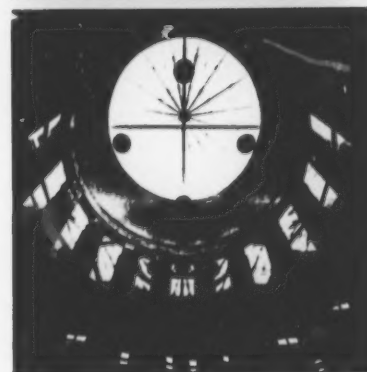
EDUCATIONAL PLANNING FIRM
Lescher and Mahoney/DLR Group
Phoenix, Arizona
Rich Pawelko, AIA
602-381-8580

ARCHITECTURAL FIRM
Lescher and Mahoney/DLR Group
Phoenix, Arizona
Rich Pawelko, AIA
602-381-8580

Thornton Middle School

Northglenn, CO

CEFP 1995
Design Portfolio



Project Description

This new middle school in Thornton, Colorado is located on an urban site which also includes an existing elementary school and district stadium. A pedestrian bridge connects the new middle school to an existing high school and vocational training center across the street to the west. School administrators' intention is that these facilities work together as an "educational plaza" to maximize the efficient use of physical resources, staff and equipment.

The new school includes 8 groupings of 4 classrooms (32 core classrooms) as well as instructional spaces for art, music, foreign language, life management and physical education.

Special Challenges

The school is a replacement building for an existing middle school which was located centrally within a larger parcel of land owned by the school district. Because the existing middle school was to remain operational during construction of the new building, the site was limited to a steeply sloped portion of vacant area on the northernmost portion of the parcel.

In response to these parameters, the 125,000 square foot school was designed to be three stories, and is configured so that it follows the natural topography of the site, stepping downhill to the south; this maximizes natural daylight and exterior view opportunities, while reducing the apparent mass of the building.

A sky-lighted three-story central stair is the focal point of the floor plan at all levels and serves as an anchor and organizing element within the building. Located along the central spine between the library and the main entrance lobby, the cylindrical design features a double-helix stair to facilitate movement of students to several different areas of the building.

Meeting Educational Program Needs Through Design

The L-shaped main building mass, which contains the core classrooms and elective spaces, is oriented to align with the existing high school and vocational center to the west. This alignment strengthens the feeling of connectedness between these buildings and therefore fortifies the overall educational plaza, or campus concept. In contrast, a central "spine" containing the main entrance, central stair, and library media center is oriented with a north-south axis. This contrasting orientation of the central spine responds to the owner's desire to establish the public entrance and library media center as special features of the building design.

DISTRICT NAME
Adams Twelve Five Star Schools

SUPERINTENDENT
James E. Mitchell

OCCUPANCY
August 1, 1993

GRADES
6-8

BUILDING CAPACITY(STUDENTS)
1000 Students

SITE SIZE
7 Acres
2.83 Hectares

GROSS AREA OF BUILDING
125,260 Square Feet
11,641 Square Meters

PER-PUPIL
125 SF/Student
11.62 SM/Student

PROJECT COST

Site Development	\$875,400
Building Construction	\$8,724,300
Fixed Equipment	\$656,000
TOTAL	\$10,255,700

EDUCATIONAL PLANNERS

James H. Keller
Robert L. Hedley
John C. Brokaw

ARCHITECTURAL FIRM

Klipp Colussy Jenks DuBois Architects, P.C.
Denver, Colorado
John C. Brokaw
303-893-1990

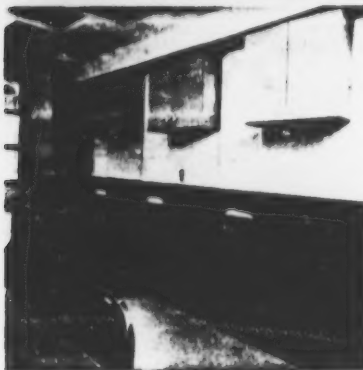
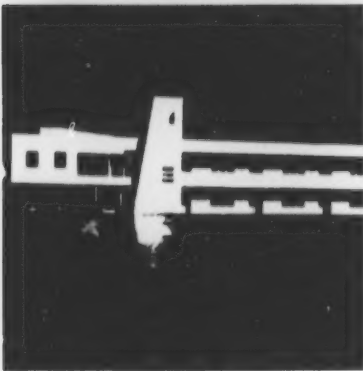
CEFA 1995
Design Portfolio

HIGH SCHOOLS

Indian Hills High School
Nay Ah Shing Upper School
North Surrey Secondary
Salmon Arms Senior Secondary
Southwest High School
Waukesha West High School

Indian Hills High School Calabasas, CA

CEFP 1995
Design Portfolio



The project expresses the energy of the students and staff, tempered by an overall appearance of educational strength and conviction while providing a critical link between high school and community.

A new high school located in the temperate foothills of Calabasas, California on a 1.5 acre lot bordered by residential streets on the north, west and south and a major thoroughfare to the Pacific Coast on the east, the school incorporates 11,620 sf for continuing high school students. Major elements include administrative facilities, classrooms, art studio, computer lab, photography room, lunch area, and outdoor activity areas.

The building's organization was dictated by site, supervision and learning. The two-story, linear organization offers advantages by providing extended views of the major circulation areas, school entries, and stairs, etc., as required for supervision by the administrative "cube" which is located in a pivotal position near the center of the site. The entire campus can be supervised with as few as three staff members. The shaded student lunch area and restrooms are located under the Administrative Offices adjacent to the hardscape courts. The eight classrooms (4 above 4) are located at the opposite end of the building. The main access to the second floor is by a centrally located elevator and stairway.

The site provides for staff, student, and visitor parking supplemented by a street stair and ramp. The hardscape provides for additional after school (community activities) parking.

The project was founded on the premise that "if students are provided with a quality learning environment they will respond with pride, commitment, and respect." The students at Indian Hills High School have far exceeded these expectations.

DISTRICT NAME
Las Virgenes Unified School District

SUPERINTENDENT
Dr. Albert Marley

OCCUPANCY
November 1992

GRADES
9-12

BUILDING CAPACITY(STUDENTS)
240 Students

SITE SIZE
1.5 Acres
0.6 Hectares

GROSS AREA OF BUILDING
11,620 Square Feet
1080 Square Meters

PER-PUPIL
48 SF/Student
4.5 SM/Student

PROJECT COST

Site Development	\$400,000
Building Construction	\$1,400,000
TOTAL	\$1,800,000

ARCHITECTURAL FIRM
Woff/Lang/Christopher Architects, Inc.
Rancho Cucamonga, California
Robert Hensley
909-682-2560

CEFP 1995
Design Portfolio

Nay Ah Shing Upper School Vineland, MN

Project Description

The Nay-Ah-Sing Upper School is one of five community buildings developed for the Mille Lacs Band of Ojibwe. The buildings are located on a peninsula along the shores of Lake Mille Lacs and surrounded by the forest and marshland which has been the Ojibwe homeland since the 18th century. The Upper School, which houses children from grades 5-12, is paired with the Nay-Ah-Sing Lower Schools (age six weeks to fourth grade) to offer a comprehensive curriculum which promotes excellence in academic subjects and prepares student to compete in higher education and the workplace, while helping them maintain their unique cultural identity as Native Peoples.

Special Challenges

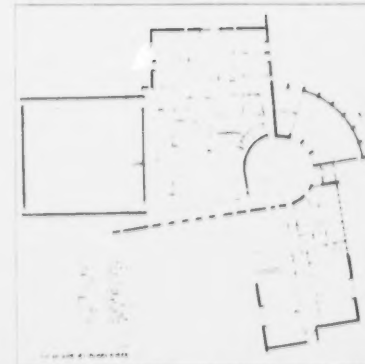
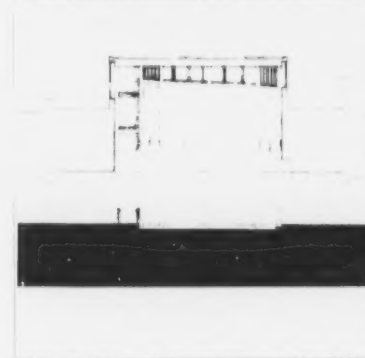
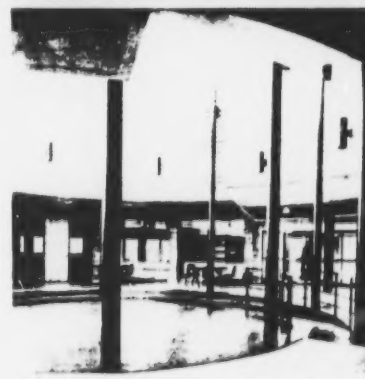
The greatest challenge on this project was working with a different culture and interpreting their values and traditions into a built form while utilizing cost-effective modern technology and materials. Working with the Band Members, CHQ Architects helped derive program and space requirements for everything from a space used for pipe ceremonies to a fully modern community gym. Other challenges revolved around jurisdictional code issues, BIA requirements, and the Band's requirement for construction training and employment opportunities throughout all phases of design and construction.

Meeting the Educational Program Needs of the Building Through Design

The Band's cultural spirituality is based on a collective relationship with nature and a respect for the environment. Much of the school's design centers around the articulation of this cultural spirituality. A circle represents many things to the Ojibwe such as continuity of life and the heart of the community. The major interior volume of the upper school is the circular pipe ceremony space. The pipe ceremony space is the heart of the school where Ojibwe culture, language, and dance are taught and weekly Pipe Ceremonies are held.

Special Consideration Given to Cost Effectiveness

The materials used in this building needed to be cost effective in construction and provide for easy maintenance while representing Ojibwe culture. The solution was to design the school as a single story slab on grade building with dimensional asphalt shingle roofs and acid-etched concrete block exterior walls, while using stucco and wood as accent materials.



DISTRICT NAME

Mille Lacs Band of Ojibwe

SUPERINTENDENT

Mr. Dwayne Dunkley

OCCUPANCY

September 1993

GRADES

4-12

BUILDING CAPACITY(STUDENT®)

250 Students

SITE SIZE

15 Acres

6.07 Hectares

GROSS AREA OF BUILDING

37,400 Square Feet

3475.8 Square Meters

PER-PUPIL

150 SF/Student

13.9 SM/Student

PROJECT COST

Site Development	\$160,000
Building Construction	\$2,740,000
Fixed Equipment	\$60,000
TOTAL	\$2,960,000

EDUCATIONAL PLANNING FIRM

CHQ Architects
Minneapolis, Minnesota
612-379-3400

ARCHITECTURAL FIRM

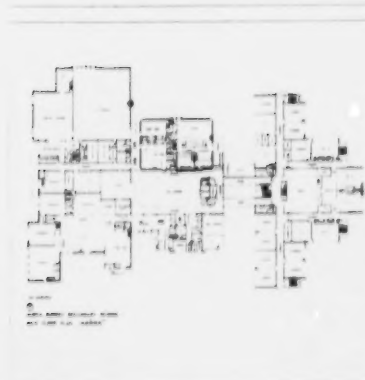
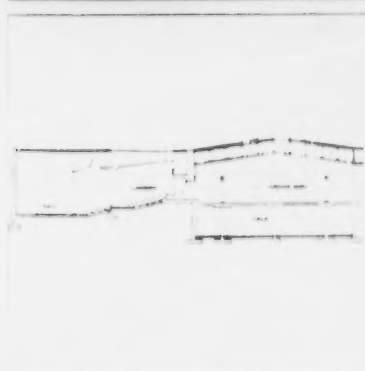
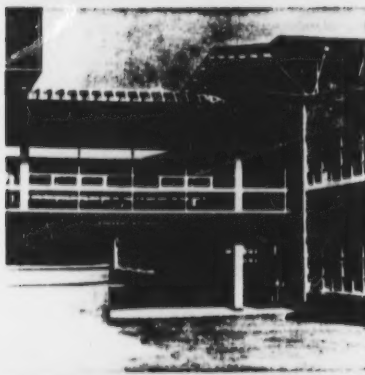
Cunningham Hamilton Quiler, P.A.
Minneapolis, Minnesota
Mr. John Quiler
612-379-3400

CONSTRUCTION MANAGEMENT FIRM

Lumber/Kraus Anderson
Minneapolis/Minnesota
Mr. Al Gerhardt
612-332-7281

North Surrey Secondary Surrey, B.C.

CEEP 1995
Design Portfolio



Project Description

North Surrey Secondary School has been designed to provide flexibility, adaptability, and enhance the interaction of students and teachers in formal and informal settings. The main organizational theme of the school is the high center spine which runs east/west the length of the school, with a continuous band of clerestory windows accentuating the linear pattern and circulation and bringing light to the interior. The school functions are located along the spine in zones which are subdividable into controllable areas for evening or weekend community use. Beneath the center spine, at the main entry to the school, is the open multipurpose area which acts as the core of the school, providing a community square: gathering area, cafeteria, informal performance space, teaching space, theatre crush space for evening and weekend performances and sports events. This open space is bordered by administration, a teaching kitchen, a 250 seat theatre, and the Physical Education block.

Special Challenges

The siting of the building was determined by the necessity of continuing the operation of the existing school, and providing for student and staff parking on site during the construction period. Although there is no funding for a stage or a cafeteria, a creative planning approach resulted in a theatre and performing arts facility. The adjacent open multipurpose room can form a theatre lobby and cafeteria (served by the professional teaching kitchen). The building is zoned to allow night use of certain areas.

Meeting the Educational Program Needs Through Design

The integration of the drama room with 2 classrooms (with stepped seating) provides the students with a significant performance space. Together with the choral and band rooms, and the large open multipurpose space, a dynamic performing arts zone is formed. The professional teaching kitchen, adjacent to the multipurpose/performing arts complex, provides vocational training and opportunities for special events such as a dinner theatre. The large open multipurpose space, lit by both skylights and clerestories, forms a central gathering space for the student population. The technology wing is intended to integrate the design process and the fabrication process. Extensive internal glazing is intended to encourage a feeling of openness and ease of access.

Special Considerations Given to Cost Effectiveness

The design allows for expansion by simple additions at the classroom wings, which can be achieved without disrupting school operations. The construction system, steel frame over a crawl space, allows for simple future renovations in response to future program requirements. Materials are chosen for durability and low maintenance to reduce operating costs.

DISTRICT NAME
SD # 36 Surrey
SUPERINTENDENT
Mr. Doug Jennings

OCCUPANCY
August 1993

GRADES
8-12

BUILDING CAPACITY (STUDENTS)
1100 Students with core facilities for 1400

SITE SIZE
15.8 Acres
6.4 Hectares

GROSS AREA OF BUILDING
146,200 Square Feet
13,582 Square Meters

PER-PUPIL
132.9 SF/Student
12.35 SM/Student

PROJECT COST
Site Development \$1,742,000
Building Construction \$19,791,000
TOTAL \$21,533,000

EDUCATIONAL PLANNING FIRM
School District #36 Surrey
Surrey, B.C.
Mr. Hugh Skinner
604-596-7733

ARCHITECTURAL FIRM
Killick Metz Bowen Rose Architects Planners, Inc.
Vancouver, B.C.
Mr. Norm Metz
604-732-3361

CONSTRUCTION MANAGEMENT FIRM
Penn-Co Construction Ltd.
Calgary, Alberta
Mr. Harold Friesen
403-291-4490

CEFP 1995
Design Portfolio

Salmon Arms Senior Secondary

Salmon Arm, B.C.

Adaptation to Site:

The site for the new Salmon Arm Secondary School is a sloping hillside of an old orchard; the slope totaling a dramatic 74 feet across the site.

The siting concept takes advantage of the slope by placing the building at the highest available point of the property, thus capturing views of the magnificent Shuswap Lake to the west.

A potentially difficult entry along a narrow portion of the site was successfully converted into a tree-lined boulevard servicing the 200 cars and 14 buses needed for this regional senior secondary. This formal entry sequence creates a traditional campus-type entry and provides a deep and enticing setback to the school.

Building Design:

The school is entered from the upper floor entry court along an axis that faces out to the dramatic view of the lake and the Fly Hills beyond.

At the root of the design is the central atrium space off which are located the major elements of the school. The atrium, as the natural social student space, becomes the key component to the organization of the school. The atrium functions as both the social heart of the school and as the space which provides an understanding of the school's organization.

From this central atrium, mail-like gallery corridors lead to secondary nodes. These secondary nodes form instructional space clusters washed with natural light. The clusters focus student interaction and reflect the task-oriented education process.

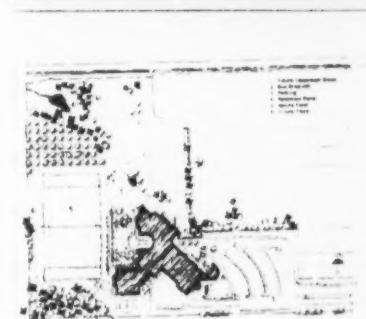
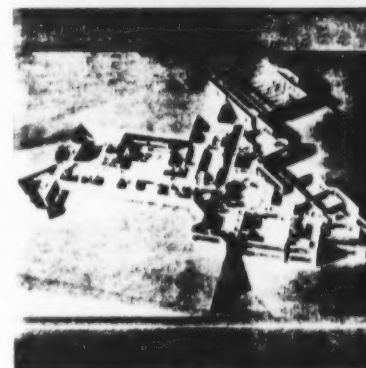
The separate wings and the nodes of the school are developed to give a campus-like character to the building; the wings forming exterior landscaped courtyards further enriching the overall character of the school.

Community Use:

The gymnasium and theater nodes can be used independent of the rest of the school for evening or weekend functions.

Expansion:

A future extension of the academic wing will permit expansion from the 700 students planned for the first phase to the 1,000 students planned for the second phase.



DISTRICT NAME

School District # 89

SUPERINTENDENT

Mr. Bill McKerich

OCCUPANCY

September 1996

GRADES

8-12

BUILDING CAPACITY(STUDENTS)

700 Students Phase 1, 1000 Students Phase 2

SITE SIZE

18.9 Acres

7.64 Hectares

GROSS AREA OF BUILDING

100,068 Square Feet

9,300 Square Meters

PER-PUPIL

143 SF/Student

13 SM/Student

PROJECT COST

Building Construction \$15 Million

ARCHITECTURAL FIRM

Dalla Lana/Griffin Architects

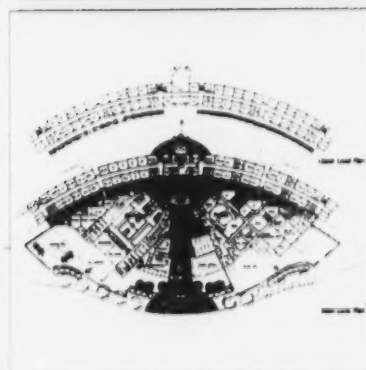
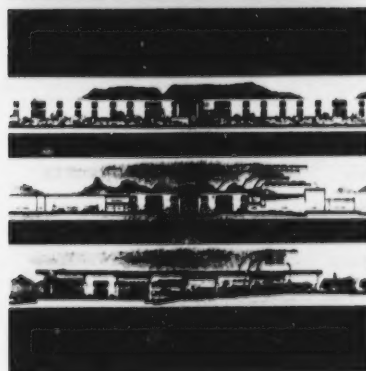
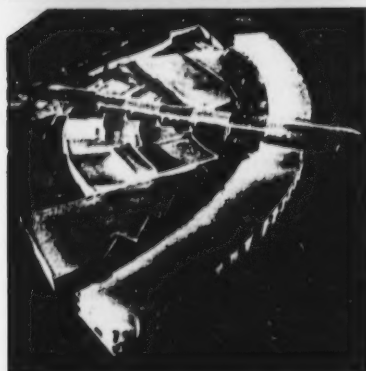
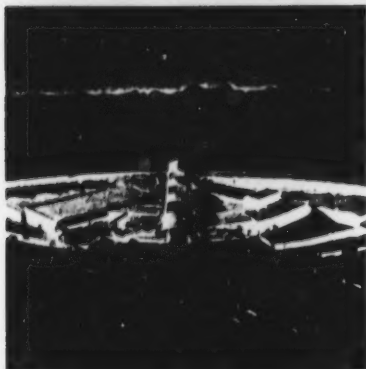
Vancouver, B.C.

J. Raymond Griffin, MAIBC, MRIAC

604-682-1664

Southwest High School Tucson, AZ

CEFP 1995
Design Portfolio



The design of this new high school responds to several goals and objectives - flexible classroom space; direct entry to gymnasium, theater and media center; visible 'front door'; community focus; and, expandability.

Organized around the central common area, the 'Atrio', the school shares its resources openly with the community it serves. Traditionally, in historic southwest architecture, the 'Atrio' was the central gathering place in front of the town church. It was used for instruction, music, dance and processions and was the focus of community life. The characteristics of the 'Atrio' are very appropriate to a high school environment that fosters a strong and lasting sense of community — thus, this design organizes the school around this active space.

The 'Atrio' is approached through a tall, arched gateway that originates at the south main entry. From the 'Atrio', access to the Media Center, Theater and Gymnasium are clear and direct. Flanking the 'Atrio' to the east and west are covered pedestrian ramadas linking all parts of the school back to the main gathering area. This outdoor space is shaded, allowing performances, festivals and school special events to occur in an appropriate setting.

Building forms were derived to respond to site influences and to create flexible and expandable learning environments. Classrooms are flexible in design to allow teaming, cooperative learning and interdisciplinary teaching to occur. All class areas include carefully articulated windows to take full advantage of the setting. The gentle east-west curve of the circulation spine and ramada allows breezes to be captured for natural cooling and provides 'friendly' visual supervision to all parts of the academic core. The Media Center, at the heart of this core, allows easy access for students and community to enjoy the resources contained within. Additionally, future expansion of this core can be accommodated in four locations adding to the flexibility.

Although not specifically mentioned in the Educational Specifications, the new school includes numerous 'Tech Labs' (computer areas) to facilitate individual and group research activities with the help of the computer. These 'Tech Labs', in addition to labs specified, will be networked to class areas and also back to the control center within the Media Center. This will facilitate media and data retrieval and transmission to occur throughout the school. Schools designed for the 21st Century need this flexibility today!

Materials are selected to complement the natural desert and provide timeless and easy-to-maintain aesthetic appeal. Combination split face and smooth concrete masonry units will provide a soft texture to the facades. Stucco on ramadas and other appropriate surfaces will allow subtle uses of color to enliven the school image. These systems are economical and easy to construct, allowing the project to be built within the budget and schedule parameters.

DISTRICT NAME
Tucson Unified School District Number One

SUPERINTENDENT
Mr. Lynn Webster

GRADES
9-12

BUILDING CAPACITY (STUDENTS)
1,700 Students, Expandable to 2,000

SITE SIZE
60 Acres
24.28 Hectares

GROSS AREA OF BUILDING
220,000 Square Feet
20,438 Square Meters

PER-PUPIL
129.41 SF/Student
12.02 SM/Student

PROJECT COST
In Bidding

EDUCATIONAL PLANNING FIRM
TMP Associates, Inc.

Bloomfield Hills, Michigan
John J. Castellana, FAIA
810-338-4561

ARCHITECTURAL FIRM

The IEF Group, Inc.
Tucson, Arizona
Irvin Finical, AIA and Klindt Brackenridge, AIA
602-882-9044

CEFP 1995
Design Portfolio

Waukesha West High School Waukesha, WI

Project Description

The Waukesha West High School is an expansive facility providing carefully planned program areas with advanced technology throughout. A two level academic area extends back from the main entrance. The commons, library media center, administration and academic classrooms, are located on the first level. The ground level houses academic classrooms, art and technical education programs. The fine arts program is housed at the south end anchored by a 500 seat auditorium. Physical education and athletics, located at the north end, feature a field house with seating for 2,000 and a six lane swimming pool.

Special Challenges

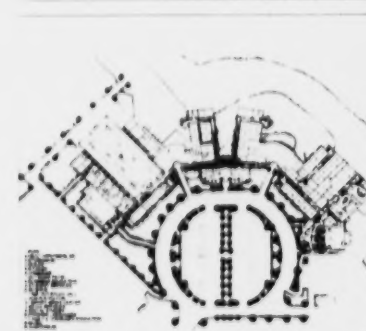
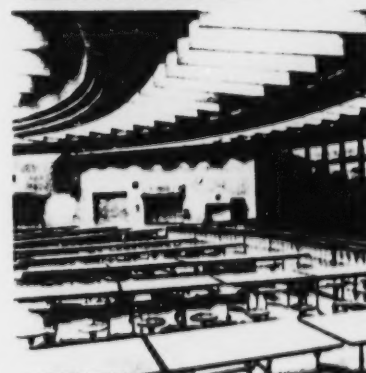
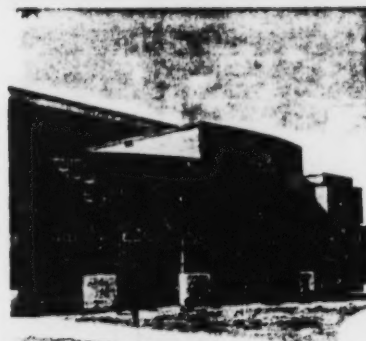
This school was part of the largest school referendum in the state's history. Informing voters of the need through active participation of administration and school board members was an important aspect of its success. The design and placement of the school has taken advantage of a picturesque country setting. Set along the ridge of a hill, the building's axis turns in three locations offering beautiful views from several vantage points within the building. The academic portion of the building was designed as two levels due to the sloping site.

Meeting the Educational Program Needs Through Design

The school offers a high level of technology along with the traditional disciplines of learning. This technology offers greater opportunities for interaction and information exchange. The design of the facility is divided into three basic areas: physical education and athletics, academics, and arts. The school was designed for community use allowing academic areas to be properly secured while the field house and auditorium are accessible. A large outdoor athletic complex and ample parking were also afforded by the site.

Special Considerations Given to Cost Effectiveness

Durable finishes, multi-use space, state-of-the-art design and energy efficiency were major considerations in the design of the school. High ceilings and skylights provide soft natural lighting. The facility is fully air conditioned with large occupancy spaces such as the gymnasium and auditorium being air-conditioned on a nonsimultaneous basis to reduce equipment size.



DISTRICT NAME

Waukesha West High School

SUPERINTENDENT

David Kampschroer

OCCUPANCY

August, 1993

GRADES

9-12

BUILDING CAPACITY (STUDENTS)

1,800 Students

SITE SIZE

82 Acres
33.2 Hectares

GROSS AREA OF BUILDING

298,205 Square Feet
27,714 Square Meters

PER-PUPIL

166 SF/Student
15.4 SM/Student

PROJECT COST

Site Development	\$1,960,000
Building Construction	\$19,739,000
Fixed Equipment	\$888,000
Other	\$1,973,000
TOTAL	\$24,560,000

EDUCATIONAL PLANNING FIRM

Franklin Hill & Associates
Kirkland, Washington
Franklin Hill, PhD.
206-822-4673

ARCHITECTURAL FIRM

The Stubenrauch Architects, Inc.
Sheboygan, Wisconsin
Mr. Paul F. Dinkins
414-458-3626

CONSTRUCTION MANAGEMENT FIRM

Oscar J. Bodt Construction Co.
Waukesha, Wisconsin
John Hale
414-544-9118



CEFA 1995 Design Portfolio

VOCATIONAL COLLEGE

11th Avenue / 101st Street, Larchmont, NY 10593-0001

CEFP 1995
Design Portfolio



Katheryn Wentzell Lumley Aviation Center Williamsport, PA

Project Description

The Kathryn Wentzell Lumley Aviation Center, is close to twice the size of the former hangar, and supports expanded enrollment in the aviation programs and accommodates larger aircraft. A paint booth accommodating a complete small aircraft and a composite Materials Lab are adjacent to the hangar. Large composite projects can use both of these areas. Additional general storage and specialized storage for paint, composites, resins, and batteries also support hangar activities.

Special Challenges

This facility, at the Williamsport-Lycoming Airport, provides a contemporary training program in the following areas: avionics, instrumentation, turbines, engines, metal fabrication, painting, composites and engine testing. The hangar facility was designed to be equal or better than most aircraft maintenance facilities for aviation companies or commuter airlines in existence today. Combining industry with academics, Penn College looks to the new facility as the catalyst for an economic boost to the area.

Meeting the Educational Program Need of the Building Design

The exterior with its airfoil-shaped roof, is designed to be viewed from the air, as well as from the ground. The visual vocabulary and materials (exposed structure and metal panels) reflect the building's setting in an industrial district.

The main entrance opens onto a central reception and clerical support area. Proceeding west from the hangar are various specialty labs. The Metal Fabrication and Welding Lab includes equipment and work stations and parts for Aviation and Avionics courses. The Reciprocating Engine Lab supports engine overhaul as well as non-destructive testing and parts cleaning. The Avionics Lab houses 24 aviation electronics workstations and specialized signal isolation rooms for RF and microwave equipment. The Instrument and Hydraulics Lab supports instruction in basic electrical components, instrument calibration and hydraulic component testing. The Turbine Lab accommodates turbine engine overhaul as well as specialized industry training.

Four engine test cells, with a central control room, support operational testing for reciprocal and turbine engines. These cells, adjacent to the aircraft tie-down area, are separated from the central facility to minimize noise interference and are designed as mini versions of the main building.

Special Considerations Given to Cost Effectiveness

Built on a constrained site behind the existing aviation training center, the final outcome was primarily governed by FAA regulations. Driveways, taxiways, parking, height and color of the facility were designed to conform to FAA standards.

DISTRICT NAME
Pennsylvania College of Technology

SUPERINTENDENT
Dr. Robert L. Brauder

OCCUPANCY
January 1993

GRADES
Freshman - Senior

BUILDING CAPACITY (STUDENTS)
110 Students

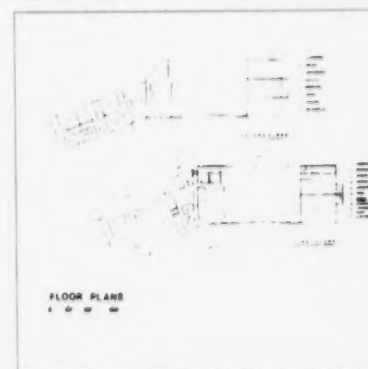
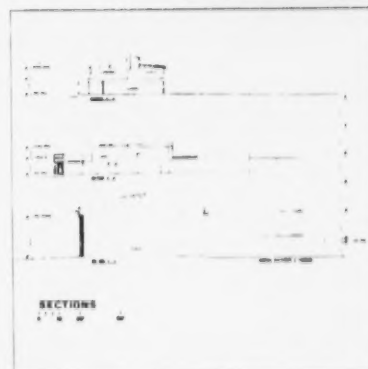
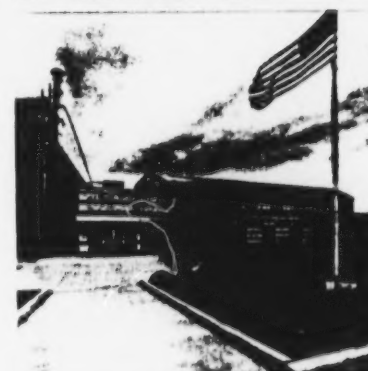
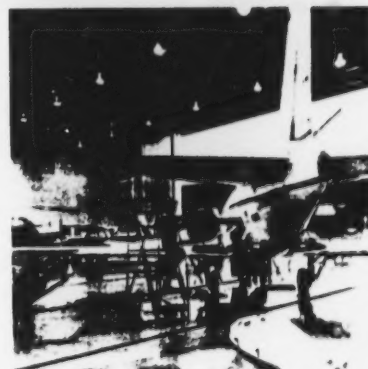
SITE SIZE
7.23 Acres
2.94 Hectares

GROSS AREA OF BUILDING
49,046 Square Feet
4,556 Square Meters

PER-PUPIL
446 SF/Student
41.42 SM/Student

PROJECT COST
Site Development \$130,200
Building Construction \$5,379,372
TOTAL \$5,518,572

ARCHITECTURAL FIRM
Hayes Large Architects
Altoona, PA
Richard L. Karcher, AIA
814-948-0451



CELESTIAL
DESIGN

Alvin C. Bush Campus Center Williamsport, PA

Project Description

Intended to be the first building visitors see upon entering the campus, the Campus Center is a symbol of the Penn College ... vital, energetic and progressive. The two-story, 105,500 square-foot Alvin C. Bush Campus Center serves as the gateway to the college campus. It is designed to be innovative and exciting, yet consistent with existing college architecture.

Like a small village of uses under one roof, the Campus Center houses a great number of functions. Penn College's first Women's Center is located here, along with a student information area and an activities center. Two separate wings off the lobby house academic and public areas.

Special Challenges

Sited on seven acres, the new facility is the pulse of the Campus. The facility's L-shape defines one corner of the campus quadrangle. The public entrance features a circular drive and tile walkway enhanced by large planters with seasonal annuals and ground covers. A student entrance faces the college campus and is highlighted by the outdoor dining plaza and seat wall. Extensive plantings screen the Service Entrance concealing loading docks and cooling towers. All plant materials have been chosen to be low maintenance and blend in with the existing campus planting scheme. Storm water management was contained in oversized underground piping so no above grade ponding was required.

Meeting the Educational Program Need of the Building Design

The Campus Center is organized around a three-story atrium. Around this hub, which is open 18 hours a day, are student activity offices, a non-alcoholic student night club and a student/faculty health and fitness club. To the north of the atrium area is a two-story academic wing housing art, photography, multipurpose space, faculty offices and child care center. South of the atrium, the second floor houses career testing and counseling, a quiet lounge and a TV lounge. The L-shaped first floor contains an array of active student areas: Recreation, two dining areas, kitchen and bookstore. From the skylit large dining area, a series of french doors opens onto a landscaped barbecue patio.

Special Considerations Given to Cost Effectiveness

Working closely with the College, Hayes Large Architects utilized the most up-to-date, cost-effective materials. Keeping in mind the use of the Penn College brick, with highlights of glazed brick, colored window mullions, and a blue-green-tinted glass at the atrium and other selected areas, this facility matches the college's other buildings designed by Hayes Large.

DISTRICT NAME
Pennsylvania College of Technology

SUPERINTENDENT
Dr. Robert L. Breuder, President

OCCUPANCY
August 1993

GRADES
Freshman-Senior

BUILDING CAPACITY (STUDENTS)
2,434 Students

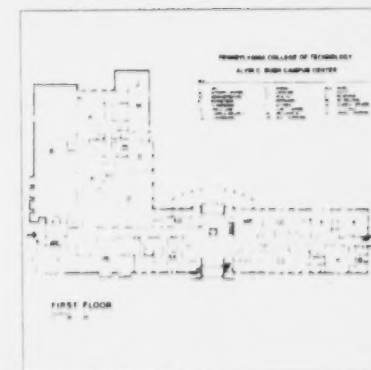
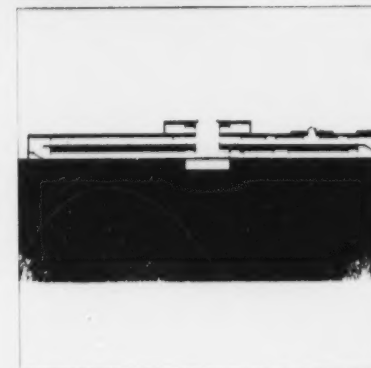
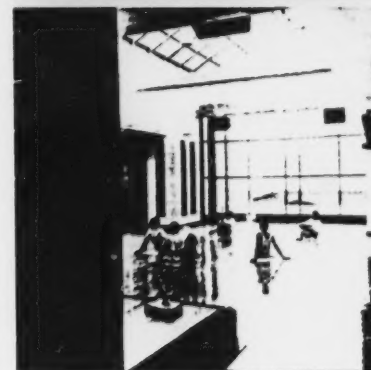
SITE SIZE
8.85 Acres
2.77 Hectares

GROSS AREA OF BUILDING
105,500 Square Feet
9,801 Square Meters

PER-PUPIL
43 SF/Student
4 SM/Student

PROJECT COST
Site Development \$343,209
Building Construction \$11,008,584
Fixed Equipment \$577,684
TOTAL \$11,929,477

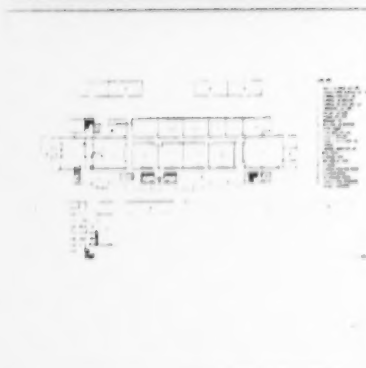
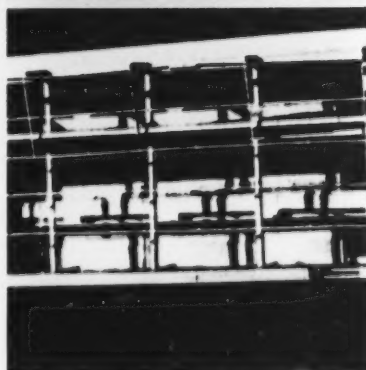
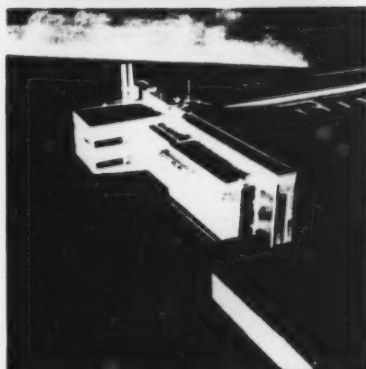
ARCHITECTURAL FIRM
Hayes Large Architects
Alltoona, PA
Richard L. Karcher, AIA
814-948-0451



College of the Sequoias, Science Center

Visalia, CA

CEFP 1995
Design Portfolio



Project Description

The new Science Center has been envisioned as an instrument to provide the inspiration and celebration for the process of scientific discovery. Focusing on the process will provide a living facility that can respond to future advances and remain timeless as both a building and context. Located in the California Central Valley, the College Campus has long provided the Science Curriculum necessary for the diverse and exclusive Agricultural background of the region since the 1940's.

With the continued advance of Science Research, the subsequent methods of teaching, have greatly altered in not only "Technology", but approach, as well. The College Design Committee has therefore expressed the prime need to combine the various disciplines of their Science Programs, to provide the interaction of cross-disciplines that are in demand in today's research and technology professions. Other goals are as follows:

- Flexibility of lab sizes for future growth and layout changes
- Clear definition of teaching space and service areas for safety, maintenance and operational efficiency
- Interaction areas for mixing of both students and faculty
- Large display areas to highlight and improve campus and public awareness of the sciences
- The use of natural lighting as a positive work environment

The Solution

The Science Center has been designed to both express and celebrate the various functional aspects of the building type in an abstract simplified language. Arranged in a "L" configuration, the building will establish the new campus quad on newly acquired land, responding and reinforcing existing circulation patterns.

Organized into four distinct parts: laboratory, laboratory service, interaction and faculty spaces; the new Science Center responds to the need for flexibility by using an "I T'-O" services planning module, which allows for a full range of lab sizes for future arrangements.

Interaction is highlighted and displayed in a 2-story study gallery, with ample room for large displays, group and individual study and computer access. This space is also oriented towards the new south campus quad showcasing daily use and displays for the general campus population.

Faculty and student interaction will take place on the project garden areas both in front of the gallery; on the garden terrace above. The open computer lab adjacent to faculty offices and in the shared project lab for extra curricular research.

DISTRICT NAME
College of the Sequoias Community College District

SUPERINTENDENT
Dr. Douglas Kechter

OCCUPANCY
1999

GRADES
Community College, All Levels

BUILDING CAPACITY(STUDENTS)
483 Students Lecture / 660 Students Lab

SITE SIZE
8.4 Acres
2.6 Hectares

GROSS AREA OF BUILDING
85,637 Square Feet
7,974 Square Meters

PER-PUPIL
177.7 SF/Student
16.51 SM/Student

PROJECT COST

Site Development	\$3.58 M
Building Construction	\$14.99 M
Fixed Equipment	\$2.66 M
TOTAL	\$21.23 M

EDUCATIONAL PLANNING FIRM
The Blurock Partnership
Newport Beach, California
Alan E. Smith, AIA
714-673-0300

ARCHITECTURAL FIRM
The Blurock Partnership
Newport Beach, California
Alan E. Smith, AIA
714-673-0300



Northern Illinois University Hoffman Estates, IL

Project Description

The Education Center of Northern Illinois University (N.I.U.) is the first building completed in the 56 acre Park Center of the Sears Merchandise Group's new 788 acre Corporate Campus. The Center incorporates a variety of instructional spaces, including a 250 seat auditorium with a state-of-the-art audiovisual system; six traditional 700 square foot classrooms with flexible seating arrangements and five larger tiered classrooms with fixed seating are supplemented by smaller conference, seminar and break-out rooms. Two computer labs have a dedicated T1 line to the main N.I.U. campus. The center's electronic library is networked to both the N.I.U. and Illinois On-line library systems, providing on-line access to over 20 million volumes statewide.

Special Challenges

In addition to the academic degree program requirements which occur primarily on evenings and weekends, the facility is designed to be used as a conference and corporate training center on weekdays. Corporate users are accommodated with executive classrooms with adjacent storage and serving areas. Break-out and seminar rooms are located near these classrooms to allow smaller group discussions. Computer training is conducted in two laboratories with 40 networked PC's connected via a central file server. The large, centrally located atrium with adjacent exterior patio serves as an ideal space for receptions, professional gatherings and expositions.

Educational Program Responses

NIU's degree programs generated 3,000 students at 21 different sites in 1990. The new Education Center was designed to consolidate N.I.U.'s course offerings at a single site and provide for the increased enrollment. The program required "... a flexible, multi-disciplined instructional facility with state-of-the-art instructional tools." Elective and non-credit courses were to be accommodated in "... spaces designed to support participatory programs where student/facility interaction is not hindered by classrooms design."

Cost Considerations

The architect and construction manager utilized a "fast track" design and construction delivery system allowing an overall time schedule of 16 months from initial educational programming to building occupancy. A steel frame structure with non-load bearing walls provided two major advantages of building flexibility and speed of construction. In addition to the economics of the delivery and the building systems, the financing of the project is unique and inherently economical. The building was developed on donated land, and financed with publicly offered "Certificates of Participation" which will be retired over 25 annual installments by the Board of Regents. This project is an excellent example of cooperation between local and state government, private enterprise and higher education.

DISTRICT NAME
Northern Illinois University

SUPERINTENDENT
Dr. John E. LaTourrette

OCCUPANCY
September 1992

GRADES
College

BUILDING CAPACITY(STUDENTS)
580 Students

SITE SIZE
3.5 Acres
1.4 Hectares

GROSS AREA OF BUILDING
46,400 Square Feet
4,310 Square Meters

PER-PUPIL
83 SF/Student
7.71 SM/Student

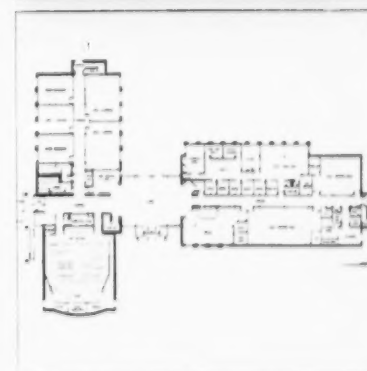
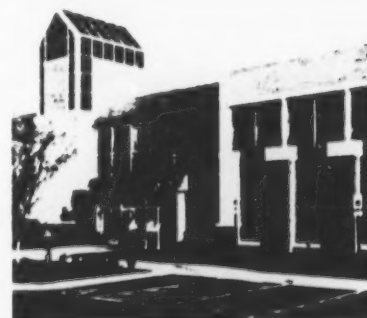
PROJECT COST

Site Development	\$500,000
Building Construction	\$4,700,000
Fixed Equipment	\$700,000
Other	\$300,000
TOTAL	\$6,200,000

EDUCATIONAL PLANNING FIRM
Otis Associates, Inc.
Schaumburg, Illinois
Michael L. Meyer
708-817-7100

ARCHITECTURAL FIRM
Otis Associates, Inc.
Schaumburg, Illinois
Mark W. Hopkins
708-817-7100

CONSTRUCTION MANAGEMENT FIRM
Pepper Construction Company
Chicago, Illinois
Michael Stensland
312-266-2792





CEFA 1995 Design Portfolio

OTHER

Cypress Lake Center for the Arts
Oakpoint Intermediate School

Cypress Lake Center for the Arts Ft. Myers, FL

Project Description

This magnet school in Ft. Myers, Florida, is a center that provides a comprehensive program of artistic training and creative development to prepare students to excel in music, theater, dance, Visual and communication arts. This innovative facility, shared by Cypress Lake High School and Cypress Lake Middle School, consists of five buildings surrounding a piazza where students and faculty congregate and occasionally watch outdoor performances at the amphitheater. The focal point of the piazza and the campus is a tower at the juncture of covered directional walkways from the entrance gate, the schools and the various classroom buildings.

Special Challenges

The time schedule presented an immediate challenge for SCHENKEL SHULTZ who was awarded the contract in August 1993 and students were to begin classes in August 1994. An excellent working relationship between the Architect, Lee County School administrators and faculty and the contractor enabled the design and construction process to run smoothly to assure the ultimate in functional specialty spaces. Another challenge the designers faced was the site configuration and its limitations in size because of the location between the High School, Middle School and Athletic facilities. The Architects solved these problems by designing a user-friendly facility that provides easy access to all areas.

Meeting Educational Program Need of the Building Through Design

The Art Building contains spaces dedicated to painting and drawing, ceramics, multi-dimensional art and photography. Special considerations were required for natural light and exterior studios. The Theater has a fully equipped TV studio and a black box studio for theater or radio production. The Dance building, features high ceilings, observation decks, oak wood flooring and movable sound systems. Unique floating, acoustical panels were used in the Music Building which contains spaces for both individual and group instrumental and vocal sessions. Included in the Administration Building is an area that can be used as an art gallery, or activity and meeting rooms, by means of movable walls.

Special Considerations Given to Cost Effectiveness

Because of the nature of this project and the short time frame, SCHENKEL SHULTZ took a simple straightforward approach to the design of each structure keeping in mind the individual needs of each particular program but maintaining the same components when possible to save costs incurred in construction time. By use of open structures with movable walls and acoustical panels, the facilities allow for more flexibility and versatility in function.

DISTRICT NAME

School District of Lee County

SUPERINTENDENT

Bobbie D'Alessandro

OCCUPANCY

August 1994

GRADES

9-12

BUILDING CAPACITY(STUDENTS)

400 Students

SITE SIZE

8.6 Acres

3.48 Hectares

GROSS AREA OF BUILDING

45,216 Square Feet

4,201 Square Meters

PER-PUPIL

113 SF/Student

10.5 SM/Student

PROJECT COST

Site Development \$735,000

Building Construction \$4,131,285

TOTAL \$4,866,285

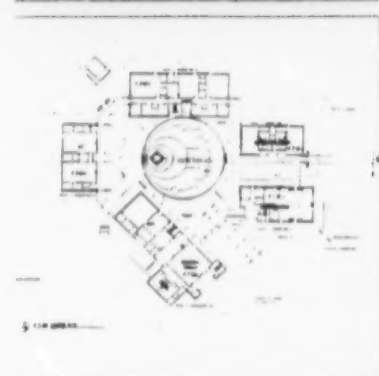
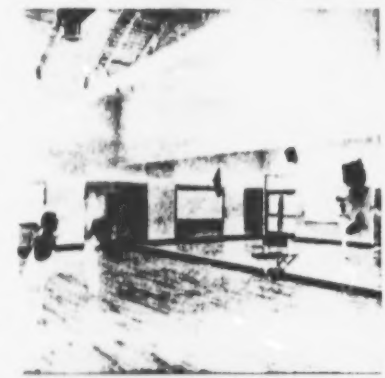
PLANNING AND ARCHITECTURAL FIRMS

Schenkel & Shultz
Ft. Myers, Florida
J. Thomas Chandler, AIA
407-872-3322

Braga Burton Braswell, Structural Engineering
Winter Park, FL

Burton & Rolley, M/E/P Engineering
Tampa, FL

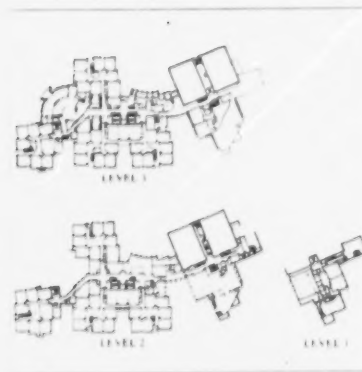
Louis A. Pecora, Acoustical Engineering
Orlando, FL



Oakpoint Intermediate School

Eden Prairie, MN

CEFP 1995
Design Portfolio



Project Description

Oak Point Intermediate School consists of four neighborhoods of approximately 400 students clustered within the overall school. This division creates units of familiar size for young students. The four neighborhoods are further broken down into two groups of eight classrooms to create smaller identity groups for students and to facilitate the teaching process. Oak Point was designed to allow for extensive community use. The formal academic wing is anchored by the media center. The building flows into the more abstract free form layout of the art wing, which is laid out in a progression from technical to dry to wet studios. All can be accessed after normal classroom hours for community education.

Special Challenges

Oak Point Intermediate takes maximum advantage of existing site amenities while imposing minimum disruption to the natural features. The building is situated in a gently sloping ridge with the media center overlooking a wooded ravine.

Meeting the Educational Program Need of the Building Through Design

A facilities committee spent over three years working with the architects to help plan the facility. They wanted a school that would help students make the transition from elementary to secondary; be flexible enough to support a wide range of teaching techniques, learning abilities, and changing curriculum; and support the district's commitment to a comprehensive arts program. Oak Point is divided into two distinct areas at the main entry. To the left is the Activity Wing which houses all the areas shared by Community Education. To the right is the Academic Wing which includes classrooms, media center, and administration. Neighborhood atrium spaces provide break-out spaces and are often used as auxiliary classrooms for team teaching and individualized learning. The Activity Wing provides art, music, and physical education instructional areas as well as a performing arts lab. All of these areas are utilized by the community both during the day and after hours.

Special Consideration Given to Cost Effectiveness

The architects designed the school to allow for ease of construction utilizing flexible building systems. In addition, the architects provided several delayed-bid packages which served to control costs while adding to the planning time frame. The overall design uses standard materials in an innovative manner.

The school is also designed for an efficiency of circulation and space and uses natural light and color to maximize the sense of openness.

DISTRICT NAME

Eden Prairie

SUPERINTENDENT

Dr. Gerald McCoy

OCCUPANCY

September 1990

GRADES

5-6

BUILDING CAPACITY(STUDENTS)

1,600 Students

SITE SIZE

17 Acres

6.88 Hectares

GROSS AREA OF BUILDING

215,000 Square Feet

19,974 Square Meters

PER-PUPIL

134 SF/Student

12.4 SM/Student

PROJECT COST

Site Development \$160,000
Building Construction \$15.5 Million

EDUCATIONAL PLANNING FIRM

CHQ Architects
Minneapolis, Minnesota
612-379-3400

ARCHITECTURAL FIRM

Cunningham Hamilton Quiter, P.A. Architects
Minneapolis, Minnesota
Mr. Stephen Thompson
612-379-3400

1 + 1 = 821

PUSH YOUR EXPOSURE
TO THE MAX!



Exposure to over 821 people at the worlds largest juried architectural exhibit.
Join CEEPI in Dallas, Texas for our 1995 Exhibition of School Architecture
and get the recognition that your school deserves!



CEEPI*

Call CEEPI at 1-800-441-1111 for more information. *CEEPI is a registered trademark of the Council of Educational Planning, Inc. © 1995 CEEPI. All rights reserved.

The Council of Educational Facility Planners, International

8687 E. Via de Ventura, Suite # 311

Scottsdale, AZ 85258

Phone (602) 948-2337 • Fax (602) 948-4420 • E-Mail: cefpi@cefpi.com